AD A 0 47500

ARI TECHNICAL REPORT

## DEVELOPMENT OF AN INDIVIDUAL EXTENSION TRAINING SYSTEM FOR MANAGING & CONDUCTING TRAINING IN THE ARMY UNIT

by

John E. Taylor, J. Richard Suchman, William H. Melching, and Hilton M. Bialek

HUMAN RESOURCES RESEARCH ORGANIZATION 300 North Washington Street Alexandria, Virginia 22314

OCTOBER 1977

Contract DAHC 19-76-C-0010

Prepared for

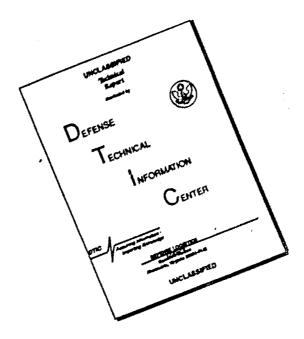


U.S. ARMY RESEARCH INSTITUTE for the BEHAVIORAL and SOCIAL SCIENCES 5001 Eisenhower Avenue Alexandria, Virginia 22333



300 F

# DISCLAIMER NOTICE



THIS DOCUMENT IS BEST QUALITY AVAILABLE. THE COPY FURNISHED TO DTIC CONTAINED A SIGNIFICANT NUMBER OF PAGES WHICH DO NOT REPRODUCE LEGIBLY.

### U. S. ARMY RESEARCH INSTITUTE FOR THE BEHAVIORAL AND SOCIAL SCIENCES

A Field Operating Agency under the Jurisdiction of the Deputy Chief of Staff for Personnel

J. E. UHLANER Technical Director W. C. MAUS COL, GS Commander

Research accomplished under contract to the Department of the Army

Human Resources Research Organization Western Division

### NOTICES

<u>DISTRIBUTION</u>: Primary distribution of this report has been made by ARI. Please address correspondence concerning distribution of reports to: U.S. Army Research Institute for the Behavioral and Social Sciences, ATTN: PERI-P, 5001 Eisenhower Avenue, Alexandria, Virginia 22333.

FINAL DISPOSITION: This report may be destroyed when it is no longer needed. Please do not return it to the U.S. Army Research Institute for the Behavioral and Social Sciences.

NOTE: The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

BARIT

Unclassified
SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

	REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM							
	1. REPORT NOTES	ON NO.	CIPIENT'S CATALOG NUMBER							
	Technical Report 77-A8	4	9)							
05	4. TITLE (and Sabinia)	MICHEL MARINE	TYPE OF REPORT & PERIOD COVERED							
6	DEVELOPMENT OF AN INDIVIDUAL EXTENSION TRAININ SYSTEM FOR MANAGING AND CONDUCTING TRAINING IN		Final Report November 76							
	THE ARMY UNIT	MANAGEMENT AND ADDRESS OF THE PARTY OF THE P	A PERFORMING ORG. REPORT NUMBER							
	= F / OF HUMR	RA	FR-WD-CA-76-18							
0	7. AUTHORIE		DA HIC TO 76 C MOLA							
(10)	John E. Taylor, William H. Melchin	ig A	DA HC-19-76-C-6010							
7	J. Richard Suchman Hilton M. Bialek	(75)								
	S. PERFORMING CROANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS							
	Human Resources Research Organization	11								
	300 N. Washington St. Alexandria, VA 22314	101	20763731A77Ø (							
	11. CONTROLLING OFFICE NAME AND ADDRESS US Army Research Institute for the Behavioral		12. REPORT DATE							
	and Social Sciences, 5001 Eisenhower Avenue,	(1)	October 1977							
	Alexandria, Virginia 22333	Tarve	207							
	14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling O	15. SECURITY CLASS. (of this report)								
	ARI Field Unit - Presidio of Monterey P.O. Box 5787		■ Unclassified							
	Presidio of Monterey, California 93940	11	5a. DECLASSIFICATION/DOWNGRADING SCHEDULE							
	1 d-	7-1	SCHEDULE							
	16. DISTRIBUTION STATEMENT (of this Report)		4.07							
			a1807							
	Approved for public release; distribution u	ınlimi	ted							
	17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if difference of the abstract entered in Block 20, if difference of the abstract entered in Block 20, if difference of the abstract entered in Block 20, if	rent from	( Report)							
			10							
	18. SUPPLEMENTARY NOTES		District Provide of							
	Research and development performed by HumRRO Western Division, Presidio of Monterey, California, under the technical monitoring of J. J. Sternberg, ARI Field Unit.  19. KEY WORDS (Continue on reverse side if necessary and identity by block number)									
			tralized training							
10349	attitudes of instructors	design	ning instruction							
			ted Personnel Management							
1			m (EPMS) sion training							
	20. STRACT (Continue on reverse stds If recessary and identify by block n		sion training							
	The work reported here was accomplished dur	ring t								
	to develop a performance-based system for the									
	and evaluation in Army combat units. The work running development and research phases. The									
	the current approach to the conduct of individu									
	by the subordinate units of an Army combat divi									

resources (time, material, personnel) available to a division for such training and evaluation; (3) developed a model for accomplishing the Army's training

### SECURITY CLASSIFICATION OF THIS PAGE(When Date Entered)

### 19. (continued)

field testing
incentives to learn
indirect fire infantryman
individual skill assessment
individual training in units
instructor training
light weapons infantryman
military training
performance-oriented training
performance testing
personnel turbulence

screening tests
Skill Qualification Tests (SQT)
skill training
soldiers manuals
task training packages
training evaluation
training management
training materials
training model
training records
training resources
training technology

### 20. (continued)

objectives under real-world resource constraints; (4) designed a prototype system for accomplishing training and evaluation for a representative sample of job tasks for the Light Weapons Infantryman (MOS 11B) and the Indirect Fire Infantryman (MOS 11C) at EPMS Skill Levels 1 and 2; and (5) developed and pilot tested instructional, evaluation, management, and record keeping techniques and materials to support the system in a subsequent field test. The research phase studied the effects of major variables impinging upon the system; i.e., (1) personnel turbulence within units; (2) the attractiveness of a variety of incentives for pursuing training; and (3) cost effective approaches to determining an individual's training needs. At this writing, findings and products of the development and research phases are being incorporated into a field test of the system in an infantry battalion. Three rifle companies, under varying conditions of personnel turbulence, are employing the system to conduct individual training and evaluation. Data are to be gathered on (1) the system's feasibility; (2) performance of participants; and (3) attitudes of participants, trainers, and training managers toward the system. The system will be refined on the basis of field test results.

### SUMMARY AND CONCLUSIONS

### **PROBLEM**

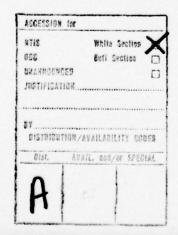
With decentralization of Army training, there is a need to develop and implement performance-oriented training programs for developing individual skills in units. The work reported here was devoted to the development and field test of a comprehensive and integrated prototype training and evaluation system for combat units.

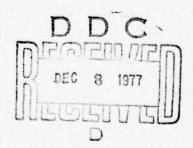
### **APPROACH**

The work was undertaken in three phases. In Phase I, background information was obtained about (1) current procedures for conducting individual training in units, (2) available materials for training in individual skills, and (3) kinds of individual tasks required of the soldier in his unit assignment. This information was used to guide the development of prototype training packages. In Phase II, a model of an Individual Extension Training System (IETS) was designed, and development of prototype training and testing materials was undertaken. In addition to the development effort, a series of research studies sought information about factors that were thought to be critical to the success of an individual training system in the Army unit. Phase III, now underway, is to be devoted to conducting a field test of the prototype IETS with units of the 7th Infantry Division, Fort Ord, California.

### CONCLUSIONS

Based on the results of the effort to date, it is feasible to develop a viable individual extension training system for implementation in Army units. An IETS like that developed here will mesh with requirements of the Enlisted Personnel Management System (EPMS). It will be consistent with the planned use of the Skill Qualification Tests (SQT), and it will fill a long-standing need in the Army's training progression from individual institutional training to operational collective readiness.





### **PREFACE**

This report summarizes the accomplishments of the first year's efforts on a contract to develop a performance based training and evaluation system for the combat arms. The work was performed by the staff of HumRRO's Western Division, Presidio of Monterey, California of which Dr. Howard H. McFann is director. Dr. John E. Taylor served as the project's principal investigator. Key project staff members, and their major responsibilities, were as follows: Dr. Hilton M. Bialek, research studies; COL Mark F. Brennan (Ret.), training management; Ms Jacklyn E. Hungerland, training package development; Mr. Kent H. Huff, task definition and test development; Miss Wendy J. McGuire, research studies; Dr. William H. Melching, training management; Dr. Morris Showel, training package development; Dr. J. Richard Suchman, model building; Dr. Elaine N. Taylor, test development; and Mrs. Diana W. Zapf, research studies.

HumRRO's work on the project was conducted under Contract No. DACH-19-76-C-0010 under the sponsorship of the US Army Research Institute for the Behavioral and Social Sciences. Mr. Jack J. Sternberg served as Contracting Office's Technical Representative (COTR). Dr. Milton Katz served as alternate COTR. Administrative and logistical support for the study was provided by the US Army Research Institute Field Unit, Presidio of Monterey, with MAJ Joel S. Stephensen as R&D Coordinator.

Several members of the research staff of ARI's Presidio of Monterey Field Unit supplemented the HumRRO staff in accomplishment of the project's first year objectives. They, and their major responsibilities, were as follows: Dr. Otto Kahn, training management; Dr. Jack Hiller, test development; and Dr. Richard Bloom research studies.

Field support of the work was provided by officers and men of the 7th Infantry Division, Fort Ord, California, commanded by MG Marion C. Ross. BG Robert Arter, Assistant Division Commander (Maneuver), maintained a continuing personal interest in, and provided strong command support for, the project's objectives. Personnel of the 7th Division, ranging from squad leader through the highest levels of command, shared their insights and philosophy on the conduct of training, served as subject matter experts during the development phases of the project, and subjected the newly developed instructional and management components of the system to field testing. The project could not have been conducted without this support.

### TABLE OF CONTENTS

																												Page
BACKGRO	OUNI	D &	PROBI	EM																								1
GENERAI	L PI	ROJ	ECT PI	AN																								3
COORDI	NAT.	ION																										5
GATHER	ING	BA	CKGROU	IND	MATI	ERI	AL	S &	D	ATA																		6
E: Ta	xis ask	tin Di	g Syst g Trai fficul g Mate	lnin Lty	g L	i te ly	ra	tur 	e 8	· M	íat •	er •	1a	118		•	•			:	:	:	:	:	:	:	•	6 9 9 10
DEVELO	PME	NT																										12
II Ta	ETS ask	Mo	del aining est o	g Pa	cka	ges																						12 16 18
RESEAR	CH																											19
C	ost	-Ef	el Tur fectiv	7e S	cre	eni	ng	Te	est	s																		19 20 21
FIELD	TES	TIN	G.								•					٠			•									22
A	dmi	nis	trativ	re I	rep	ara	ti	ons																				22 23 23
APPEND	IX .	A	Inter	viev	7S																							A-1
		В	IETS '	Tasl	c Se	lec	ti	on																				B-1
		С	Index	of	Tas	k 1	Cra	ini	ng	Pa	ack	cag	ges	s	(	ΓTI	Ps	)										C-1
		D	Train	ing	Man	age	eme	nt	Fu	nci	tic	ns	3 8	<b>S</b> :	Газ	sks	S											D-1
		E	Manag:	ing	Ind	ivi	du	al	Tr	aiı	nir	ng																E-1
		F	Condu	cti	ng I	ndi	lvi	dua	1	Tra	air	niı	ng															F-1
		G	Attit	ude	Sur	vey	7 &	Qu	es	tic	onr	nai	ire	e 1	For	rms	S											G-1
		Н	Samp1	e Ta	sk	Def	Ein	iti	on	D:	iag	gra	ams	s														H-1

### BACKGROUND AND PROBLEM

Major shifts are now occurring in the Army's training establishment. Training is being decentralized, efforts are being made to move individuals through the training base faster, and there is a need to reduce training costs (funds, personnel, time, and facilities) without reduction of training effectiveness. Enlisted career progression and individual and collective training and testing are becoming more job-related, and training emphasis is shifting from the institutional to the unit setting.

The move toward decentralization of training has resulted in (1) a shift of R&D emphasis to accommodate this decentralization, and (2) a corresponding shift of much individual training from the training institution to the unit. Programs of R&D will have to consider simplified but effective training literature and methodology that will more easily accommodate to widespread but standardized training programs. Such methods as simulation and miniaturization must be examined as well as the utilization of publications (including the Army's "1,000 books"), Training Extension Course (TEC) and accelerated training. In addition, training programs for training managers and instructors must be evaluated and implemented in order to facilitate and maintain institutional change in the direction of performance-based training.

As the Army prepares for implementation of the Enlisted Personnel Management System (EPMS), the need for a comprehensive and systematic approach to effective change becomes acute. The recently introduced techniques of performance training and testing in the training base have had impact on skill testing; e.g., in the development and validation of Army Training Evaluation Programs (ARTEPs) and Skill Qualification Tests (SQTs). A need has been recognized to extend performance-based training and testing beyond the training base to all skill levels in the EMPS through both resident and nonresident instruction.

The overall problem being approached in the work reported here is the development and implementation of performance-oriented training programs for individual skill advancement in unit training. The key is the successful performance of the required individual skills at all levels, for it is the failure of individual skill performance that in turn degrades the performance of the unit. Once a soldier finishes AIT and has acquired the entry level skills deemed essential for joining a unit, his training program needs to be directed toward essential skill maintenance and learning to perform the additional skills that make him more effective in his unit. Having learned the basics, the soldier should be trained to perform the higher level skills of his job, the skills of the junior leader, and the skills needed to progress through the skill levels of the EPMS.

Individual skills at all levels must be developed and evaluated, and subsequently recognized training needs must be provided for in the most cost-effective fashion. Once specified skill levels are achieved, effective means of skill maintenance must be identified, developed, and implemented. For the major proportion of the combat arms population, these needs will be met most often and most directly in the unit context.

With this extensive shift of training emphasis from the institution to the unit come requirements for a comprehensive individual training system. In other words, under decentralization, the training of individuals – set on its way by the schools – must now be carried forward by the units. Such a system must be designed to fit in with and complement the collective training system already in operation in units. Since individual training is to be performance oriented, learning needs to be centered around the individual task. Techniques for training individual tasks and skills and for testing individual performance become requirements. Also, to eliminate training where it is not needed, screening techniques to assess the present proficiency of previously trained individuals need to be developed.

current with the above are needs for (1) the development of for training officers and key NCOs in the management of and, and (2) the development of programs for training squad and section leaders who will assume responsibility for instructing and testing individual soldiers. A final requirement is to develop a set of recording and reporting instruments by which to maintain an effective quality control over the instructional system.

To accommodate these several trends, needs, and conceptions of individual training cited above, a research effort was undertaken to develop an Individual Extension Training System (IETS) for implementation in Army units. The results of the effort constitute the substance of the present report.

### GENERAL PROJECT PLAN

The project's first year activities progressed through three general phases. As outlined below, Phases I, II, and III followed one another in sequence, while sub-phases II A and II B ran concurrently.

Phase I was devoted to accomplishing the following activities.

- 1. Effecting the necessary coordination with all agencies interested in the IETS. These coordinations were accomplished by a series of trips and meetings involving representatives of HumRRO, ARI, the US Army Training & Doctrine Command (TRADOC), Training Management Institute (TMI), the US Army-Infantry School (USAIS), and the 7th Infantry Division.
- 2. Gathering the background materials and data required for developing the IETS. These materials and data were gathered by reviewing and analyzing all training literature and doctrine relevant to the conduct of individual training for MOS 11B and 11C, and by conducting extensive interviews at all echelons of the 7th Division to determine the state of individual training, training resources, training philosophy, and procedures in combat units. These activities provided a firm baseline for proceeding to develop the IETS.
- 3. Selecting the MOS 11B and 11C tasks to be used in the development of prototype components. In conjunction with 7th Division personnel, tasks were selected for the development of prototype Task Training Packages (TTPS). The tasks selected constituted a representative sample of Soldier's Manual tasks for Skill Levels 1 and 2 in MOS 11B and 11C. Extant resource materials for training in these tasks (films, training aids, TEC lessons, FMs, ...) were inventoried.

Phase II consisted of two concurrently running sub-phases. They were: A. IETS Model Design and Components Development, and B. Supporting Research Studies.

A. (1) IETS Model Design - Design of an ideal IETS model proceeded through three iterations in which the variety of parameters, agencies, missions, and system components and functions were considered. Each iteration served to refine the focus of the developing model, resulting in an IETS which decentralizes training responsibility to the squad leader, makes all training job-performance oriented, individualized and self paced, and eliminates a formal school atmosphere. The specific vehicles for accomplishing training and evaluation are contained in Task Training Packages provided to the squad leader. Training management is provided by company NCOs and officers.

- (2) IETS Component Development This work was accomplished by three developmental teams working in close coordination. One team developed instructional materials for the prototype TTPs, another team developed the performance tests for the TTPs, and the third team developed management and record keeping techniques. These separate components were melded together to produce a prototype IETS. Major system components consisted of (1) a set of nine prototype TTPs for accomplishing skill training across 37 tasks, (2) a set of techniques for managing the training, and (3) training programs for system managers and for trainers. Components were pilot tested on small groups of soldiers and NCOs during development.
- B. Supporting Research Studies This work was accomplished by a team who designed and conducted two major studies prior to field test of the IETS, and designed a third study to be conducted during the field test. The first and largest study gathered information by direct observation on the extent of personnel turbulence and its effect on the conduct of training in units. The second study was a questionnaire study to determine soldiers' attitudes toward training and their preference among a variety of incentives for pursuing individual training across duty positions and for advancement. The third study was designed to determine the most cost effective technique for determining the training needs of individual soldiers intering the IETS.

Phase III, now underway, is to be devoted to conducting a field test of the prototype IETS with units of the 7th Division. At the time of this writing, detailed plans have been made to train the officers and NCOs of three rifle companies in the implementation of the IETs, to provide them with all the training, evaluation, management, and record keeping tools required, and to gather performance data on the system's effectiveness for accomplishing individual training. The system will be observed as it operates under varying conditions of personnel turbulence (high to low). Results of the field test will be used to refine the model and to continue development of the system during a second project year.

The following sections of this report describe in greater detail the activities briefly outlined above.

The research team planned to develop ten TTPs. Because the Infantry School could not provide definitive doctrine on one task (Vulnerability of Armor); the team was able to produce only nine TTPs.

### COORDINATION

Coordination meetings were held initially between HumRRO-Western Division research staff and representatives of the ARI Monterey Field Unit staff to prepare for a subsequent joint HumRRO/ARI coordination trip. At these initial meetings, general objectives and a three-phased plan of attack was developed.

On December 1 and 2, 1975, the HumrRO/ARI team visited the ARI offices in Arlington, Virginia where discussions were held with other ARI personnel having a formal interest and involvement in this project. These discussions were concerned mainly with the impact of the EPMS and the ongoing program of SQT development and validation upon individual extension training. On December 3, 1975, the HumrRO/ARI team (augmented by several representatives of the Arlington ARI staff) visited TRADOC Headquarters, Fort Monroe, Virginia, where the general project objectives and program plan were coordinated with representatives of TMI and the Infantry School. Subsequent to the above coordination meetings, informal discussion was held with the CG of the 7th Infantry Division to apprise him of general project plans for the coming year.

Early in February, a meeting was held with the CG, the Assistant Division Commander, and the G-3 of the 7th Infantry Division, to apprise them of project plans and progress and the establish a climate and coordinating procedures for the conduct of project activities during the year. A subsequent meeting was held with the ADC and G-3 to relate this current project to other recently completed projects, to explain current project plans in greater detail, and to make arrangements for undertaking a planned series of interviews with 7th Division personnel.

Contractor's Quarterly Reviews (CQR) played a significant role in the overall coordination of the project. They were held in February, May, and September, and were attended by representatives of ARI, TMI/TRADOC, the Infantry School, the 7th Division, and HumRRO. The format in each instance was a one or two day conference that combined formal presentations of work completed, in progress, and projected, followed by in-depth discussions to establish a meeting of the minds among all interested organizations. The client organizations were able to clarify their needs and expectations, and the research team was able to communicate its support needs and any difficulties being encountered in securing necessary Army materials and personnel to support the work. The CQRs proved to be a valuable tool for coordination purposes because (1) they caused the research team to periodically take stock of progress in depth, (2) they enabled the team to obtain feedback from the other interested organizations, and (3) they provided assurance to the client groups that plans were targeted on the important goals.

### GATHERING BACKGROUND MATERIALS AND DATA

### Training System Interviews

An interview program to gather information on the existing training procedures being used in the 7th Division, with emphasis on individual training, was conducted at all levels from division to squad. A battery of questions was formulated, a program for interviewing trainers and training managers was designed, and data collection procedures were established. Information was sought in a number of general areas; e.g., the use of ARTEPs as training guides, how individual skill training is conducted, how evaluations are conducted, what records are kept, et cetera. Appendix A-1 contains the detailed questions posed to each category of interviewer and the general interviewer schedule followed.

Teams of HumRRO and ARI personnel interviewed commanders, staff officers, and NCOs. Details of the team's findings are reported in Appendix A-2, entitled "Impressions Gained From Informal Interviews". These findings are summarized immediately below.

### **ARTEPs**

ARTEPs are accepted at all levls as being objective and oriented toward the goals for which units should be trained. At the lower levels, the soldiers like the squad and platoon ARTEPs, but feel that the higher level ARTEPs are for the leaders. The latter ARTEPs repeat activities that have been performed before, and the men often feel that their individual performance is superflowous.

### Individual Training

The role of individual training in the total training system is not clearly defined. There is some individual training connected with ARTEP preparation; some individual training for "sweepstakes," EIB tests, weapons qualification, etc.; and some other individual training for advancement which is the responsibility of the individual.

A comprehensive and cohesive system for managing individual training does not exist. Though guidance is provided from brigade level, individual training reflects the needs of battalion and lower levels. Battalion, company, and platoon levels all reported that lower priority is given to individual training than to unit training.

### Individual Evaluation

Company commanders, platoon sergeants, and squad leaders all reported that they knew the abilities of their men. Their evaluations were informal. Platoon sergeants and higher ranks expressed some doubts about the ability of some of the squad leaders to evaluate their men, inexperience being a major factor. "Sweepstakes" were conducted in several of the battalions prior to ARTEP training in order to train men and to evaluate their individual skills prior to unit training. Time apparently does not permit "sweepstakes" evaluations to be in the formal training program. Leadership skills can be evaluated in the ARTEP context, but evaluation of individual skills is viewed as a management problem. (Where do you get the evaluators, and when do you have the time to do it?)

### Record Keeping

It appears there is a need for some type of record keeping system on individual proficiency. At the lower levels, leaders state that they know their men, and a record keeping system merely imposes an unnecessary paper work burden. At the higher levels, record keeping is also viewed as a paper work burden, but there is consensus that information on proficiency in the critical skills in the weapons systems would be of definite value.

### Training Technology

The ARTEPs and the new "How To Fight" manuals appear to be accepted by leaders at all levels as useful in guiding unit training and teaching tactical doctrine. The ARTEPs appear to be the driving force behind their use. Very limited use is made of the TEC materials. The Soldier's Manuals initially received limited distribution. The EPMS with its SQTs may become the driving force to generate acceptance of individual skill training guidance.

### Training Resources

Resource deficiencies were frequently mentioned by those being interviewed. They included the need for adequate anti-tank and defensive firing ranges, restrictions on mortar firing, inadequate size of training areas, and the difficulties involved in obtaining training aids. The effect of these on individual and unit training would be difficult to assess. However, the lack of trained and experienced leaders does exist, and this problem is recognized by the higher levels.

### Use of Training Time

The Division has scheduled training "T" weeks. The battalion in a T week receives priority on training areas and ranges which provides the unit the major resources to conduct unit training. During the non-T weeks, physical training and other subjects are conducted in the morning, while the majority of personnel are involved in either details or an educational (on-post) school program in the afternoon. The intent is to have most of the personnel available during the T weeks so the commander can plan on having effective units in the field.

Turbulence is generated mostly from within the division. While T weeks are intended to relieve this turbulence, in fact, the T week is allowed to be interrupted, and thus the training schedules are disturbed. There appears to be little difference to the men between a T and a non-T week at the platoon level and down. Company level training NCOs report constant training schedule interruption and rescheduling difficulties.

### Weapons Systems Effectiveness

These interviews were directed to the 11B MOS area. There is a definite concern by commanders for having their machine gun and mortar "systems" effective, and this concern is evidenced by the centralizing of instruction and training under known experts within the battalion. The exact sources of guidance for systems effectiveness are not pinpointed. Guidance comes from training inspections by experienced commanders, from their oral instructions, and through feedback from ARTEP performances.

### Cross Training

What cross training is being accomplished is done on an informal basis. The commander's primary emphasis is to get his men trained in their primary MOSs, especially in a newly activated division such as the 7th.

Providing experience in leadership for men in a peacetime status is more of a concern to commanders than qualifying men to serve in a secondary MOS. The problem of training NCOs to be effective leaders, able to demonstrate that they know their jobs and can take care of their men, is a more important problem than cross training.

### Existing Training Literature & Materials

Concurrent with the interviews, working teams studied the latest training literature, some in draft form, made available by the Infantry School. The draft ARTEPs for Light Infantry Battalions, the draft Soldier's Manuals for MOS 11B and 11C, Skill Levels 1 and 2, were given extensive study. Existing TEC materials were examined along with recently issued Training Circulars of the "How To Fight" series.

An inventory of available on-the-shelf training materials relevent to the 11B and 11C tasks selected for development was also compiled. This included FMs, TMs, training films, video tapes, TEC tapes, and training aids.

Through this process, and participation in interviews at all levels as summarized in Appendix A, project staff became thoroughly conversant with the current resources and management requirements for individual training in the 11B and C MOS.

### Task Difficulty Study

From the outset, it was clear that to attempt to include all tasks specified in the 11B and 11C Soldier's Manuals was beyond the scope and resources of the project. Because of this constraint, an early and significant step in the development of the prototype IETS was the determination of those tasks on which to focus development effort. The rationale and procedures followed in making that determination are set forth in detail in Appendices B-1 and B-2. The highlights of that study are summarized in the following paragraphs.

### Task Difficulty Analysis

All 11B and C common tasks at Skill Levels 1 and 2 plus all duty position tasks in 11B and C were rated by a sample of approximately 30 E-2s and E-3s and NCOs as to their level of difficulty to learn. A five-point scale from "VERY HARD" to "VERY EASY" was used. The results were analyzed to assign each task a mean difficulty rating. Qualitative analyses determined whether the tasks called primarily for cognitive skills, motor skills, or a mix. The difficulty ratings and qualitative information were the major factors used in the selection of the first set of tasks to be included in the prototype IETS TTPs.

### IETS Task Selection

The initial selection of tasks for a prototype field test involved 14 general tasks from MOS 11B and C in Skill Levels 1 and 2. These are listed in the following chart entitled "RESOURCE MATERIALS FOR IETS SELECTED TASKS." From the 14 general tasks initially selected, the list was expanded to a total of 37 tasks and subtasks organized into nine functional (job-relevant) clusters. Prototype TTPs were developed for conducting training in these task clusters. The full list of tasks to be used in the field test is shown in Appendix C.

### Training Materials Available

Training materials in the form of FMs, TMs, Circulars, Soldier's Manuals, TEC programs, and training aids exist within the Divsion, but are not generally available, and are not integrated into a comprehensive system for conducting individual training. The research undertook development of a variety of materials required to build such a system. These included:

- A lesson format for the learning of tasks.
  - Task definition diagrams to specify procedural steps and standards for each task.
  - The specification of learning steps.
  - Screening criteria.
  - Testing criteria.
- The development of a functional system for learning of tasks; i.e., a grouping of related tasks into functional groups.
- A program for officers and NCOs on managing individual training.
- A program for squad leaders on conducting individual training.
- A system for recording proficiency of individuals in individual tasks.
- A system for reporting individual task proficiency on a periodic basis.

TASKS	-
SFLECTED	200
TETS	1
FOR	:
MATERIALS	-
RESOURCE	

	The second second	KESOU	KLE MATE	RESOURCE MATERIALS FOR LETS SELECTED IASKS	TED TASK	9			
	Soldier's Manual							N	
118 rDS	Ing & Eval	1	TEC		_ T	NT NA			
	Outline	On-Hand		Order		TCs TCs	Learning Center	Tng-Films	
Task Description	Hand Order	r LAI	Tape	LAI Ta	Tape 0	On Hand	A/V Available	TV Tapes	Training Aid/Eq.
116A1 AP	Yes			041-061-6112-F	TM-9 FM 2	TM-9-1345-200 FM 20-32 (MOS Lib.)	T-172, T-328, T-521, T-522, T-531, T-532	TF-5-2801 TF-5-2802 TF-7-3339	Land Mine Handout; GTA-5-10-27 Mine Card
2. Organize a tank hunter-killer	Yes				FN-7	FM-23-3 TC-23-3			
3. Determine the grid coordin- ates of a point on a mili- tary map using the military grid system	Yes	930-071-0013-F	S <sub>N</sub>	7, 23 W.S	FW.	FM-21-31 FM-21-26	T-134; T-172, T-724	TF-5-3718 TF-5-3719 TF-5-3720 TF-5-3721 TF-7-4248	GTA-5-2-3 GPO-1968-0-349-487
4. Process known or susprected enemy personnel	Yes	935-071-1026-F 935-071-1028-F 935-071-1029-F	Yes No Ord	- 10 10	FM-	FM-21-75	T-331		PC 2125
5. Determine a location on the ground. (Examine surround-ing terrain & indicate location on a map.)	Yes	930-071-0013-F 930-071-0016-F 930-071-0017-F 930-071-0018-F		865 A3 86703	E.	FM 21-26	T-134; T-172; T-724	TF-5-3718 TF-5-3719 TF-5-3721 TF-5-3721 TF-7-4248	GTA-5-2-6 GPO-1968-0-349-487
6. Recognize vulnerability of enemy armor to individual and crew served weapons. Show what parts of enemy armor are vulnerable to rifle, grenade launcher or machinegun.	Yes	948-071-0006	No No No Yes	020-171-1611-F 935-171-0201-F 935-171-0202-F 935-171-0202-F	FM	FM 23–3		State Soc	2 10 98
7. Conduct a performance oriented tng class	Yes			901-071-0091-F 901-071-0093-F 901-071-0092-F	Æ	FM 21-6	3	200	Check card Army Inst.
8. Apply artificial respiration to a chemical agent casualty	Yes			911-441-0024 931-061-0062	279	IN-3-4240- 279-20&P	T-954	TF-3-4471	
11C MOS  Authenticate transmission and encrypt/decrypt grid coordinates using Kal 67	NA		101		1 stose 10 30 j				
10. Estimate Range	Yes	920-171-1611-F	F Ord	020-171-1851-F	EE	FM 21-75 FM 23-90		TF-17-3497	GIA 71-1-1
11. Call for/adjust indirect fire using the creeping method of adjustment	Yes	949-061-0001-F 949-061-0004-F 949-061-0002-F	F Ord		FA	23-91	T-138	TF-6-3385 TF-6-3386	FBC 349 Nov 74
12. Gall for/adjust indirect fire uning the bracket- ing method of adjustment	Хся	949-061-0001-F 949-061-0002-F 949-961-0004-F			FM	FM 23-91	T-138	TF-6-3385 TF-6-3386	FBC 349 Nov 74
13. Bereafglit Jimm mertar	Yen	010-071-6632-Y	N N		FA	FN 23-90			
16. Convert a magnetic azimith to a grid azimith for grid azimith to a magnetic azimuth)	Yon	930-071-0014-P	S S S		M.	FH 21-26	T-124, T-172, T-724	TF-5-3718 TF-5-3719 TF-5-3720 TF-5-3721 TF-5-4248	

### DEVELOPMENT

### IETS Model

An early step in the development of the IETS was the design of a model for individual extension training in a combat unit setting. Plans called for a sequence of revised and refined versions of the model leading to a workable system.

The final form of the model is presented in Figure 1. It has six elements organized on two perpendicular axes. The horizontal axis represents the training system itself which included (1) the task training packages and their use, (2) the evaluation instruments and their use, and (3) the training management system which combines training and testing to develop and monitor individual proficiency and keep records of its status and progress. (See also Figure 2.)

The vertical axis represents the command function which receives and processes proficiency status information to support command training decisions. The model served as a framework for the identification of the following major developmental activities:

- Training management.
- 2. Record keeping and information processing.
- 3. Task training packages and techniques for their use.
- 4. Screening and evaluation instruments and methods.

### Training Management

The Training Management Team worked on developing management guides for the operation of the IETS, which included a set of functions for recording individual task proficiency.

Recognizing that the IETS must be designed to be compatible with collective training, the team undertook first the task of breaking out, by command levels, the collective training management functions performed in preparing for ARTEPs. Following this, a prototype IETS breakout of individual training functions was developed. Products of a prior HumRRO/ARI effort (Work Unit DIV SKILL) plus the results of the informal interviews on the existing training system activities in the division,

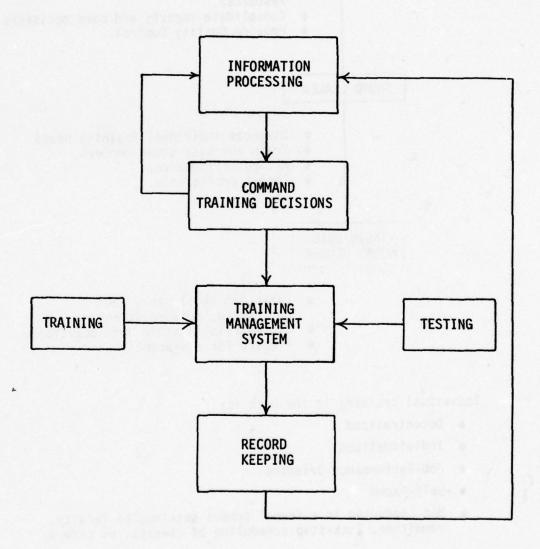
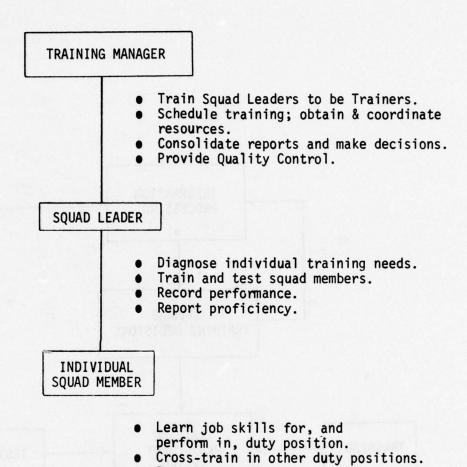


Figure 1. General IETS Model



Prepare for advancement.

Individual training in the unit is:

- Decentralized
- Individualized
- Job-Performance Oriented
- Self-Paced
- Not conducted in a formal school setting; no faculty, committee, lock-step scheduling of classes, et cetera.

Figure 2. Major Management & Training Functions in IETS Model.

provided the material for the development of each breakout.<sup>2</sup> Copies of the proposed management functions for collective and individual training are provided in Appendix D. These products guided the subsequent development of training programs to help training managers acquire the skills they need to manage the IETS.

In anticipation of the field test of the various components of the IETS, the management team prepared detailed and comprehensive programs for training managers and trainers for their roles in this test. Entitled Managing Individual Training and Conducting Individual Training, a copy of each program is provided in Appendices E and F.

As suggested by their titles, the programs are designed to give explicit guidance to the manager and trainer in managing and implementing the IETS. In a system in which individual training is decentralized, individualized, job-performance oriented, and in which formal classroom training procedures are absent, the manager must perform several significant functions. He must train his squad leaders as trainers, schedule training in the unit, provide necessary training support (terrain, equipment, special materials, etc.), consolidate proficiency reports, make decisions about training priorities, and provide quality control over all training activities - especially performance standards. These functions are spelled out in Appendix E.

The program Conducting Individual Training is also designed to help the manager accomplish many of these functions. Primarily, he will use it to train his subordinate trainers. As a result, the trainers will be able to identify performance deficiencies, train and test their men, record performance on various tests, and prepare accurate and comprehensive reports about individual proficiency. These funtions are spelled out in Appendix F.

Figure 2 summarizes the major management and training functions incorporated into the IETS at the lowest unit level. At the bottom of the figure is listed the major features characterizing the proposed IETS

<sup>2</sup>DIV SKILL developed alternate training programs to enable unit training managers and trainers to employ performance-based practices in training and in evaluating individual soldiers in their performance of their unit duties. See The Development & Trial Evaluation of Alternate Programs for Unit Training Mangers & Trainers, with Appendices A-I, by William H. Melching, Mark F. Brennan, Jacklyn E. Hungerland, Morris Showel, and John E. Taylor, Final Report FR-WD-CA-75-23, November 1975.

for conducting individual training in the unit. Also shown, are the major responsibilities and functions of the individual soldier, the squad leader, and the training manager.

In planning for system implementation, the team developed a set of record keeping procedures. Basically, the approach was to design a simple and direct method for the squad leader to record and tabulate individual task proficiency at periodic intervals. A prototype recording instrument was developed. A copy of this instrument, plus copies of related recording and reporting forms, is included in the program Conducting Individual Training in Appendix F.

The management team produced an initial design for the field test scheduled to be held during the fourth quarter of the calender year. The details of this test are described in the last section of this report, Field Testing. As part of the field test planning activity, the team drafted questionnaire and interview instruments to assess reactions of soldiers, squad leaders, training managers, and commanders to the prototype system. Copies of these assessment devices are found in Appendix G.

Task Training Packages

### Task Selection and Organization

Since the purpose of this project was to develop and field test a prototype version of the IETS, a number of tasks were selected from MOS 11B and 11C. As described above, the more difficult tasks were selected from the Soldier's Manual on the basis of specially obtained ratings, and the natural clustering of tasks.<sup>3</sup> The information obtained from these ratings was used to guide the selection of the first set of tasks to be included in the nine prototype TTPs. Where it was found that prerequisite skills and knowledge were required in order to learn to perform a particular task, these were added to the relevant TTP. Some TTPs contained only one lesson, while others contained several. The total number of unique task lessons was 37, combined into nine TTPs as shown in Appendix C.

<sup>&</sup>lt;sup>3</sup>The procedures used to obtain these ratings were described in the section entitled GATHERING BACKGROUND MATERIALS AND DATA.

### Task Definition

Information in existing job analysis and training literature, such as the Soldier's Manuals, Field Manuals, etc., was frequently found to be sketchy, inaccurate, or inconsistent. It was necessary, therefore, to devote time to defining all tasks in considerable detail. Detailed "decision trees" and flow diagrams were developed for each task to specify exactly what action sequences are required. Each completed diagram was reviewed by experienced infantry personnel as an additional check on validity. These task definition diagrams served as the structure around which the individual task lessons and performance tests were designed. Samples of these definition diagrams are provided in Appendix H.

### Task Training Lessons

For each of the 37 unique tasks to be learned, a training lesson in simple booklet form was developed in accordance with a standard format. The following is a list of the contents of each lesson booklet.

- 1. Title of lesson.
- 2. Number of lesson.
- 3. Task requirement.
- Conditions for task performance, including the situation and equipment and materials.
- 5. Standards based on Soldier's Manual.
- 6. Prerequisite knowledge and skills.
- 7. Actions taken to perform task.
- 8. Training resources.
- Guide for instructors, including how to develop and conduct a lesson checkout.

The booklets were designed to provide guidance to both the student and the instructor. In general, they indicated what training actions had to occur, provided references to published manuals and audio-visual materials, and specified testing procedures to be used by the instructor in evaluating a soldier's proficiency.

The lessons were assembled into packages (TTPs) corresponding to the task clusters mentioned above, and outlined in Appendix C. In this fashion, each lesson could be accomplished as part of a larger group of tasks or as a separate lesson. For example, the separate land navigation tasks could be learned as component skills of the overall land navigation activity, or as separate tasks.

The booklets are not programmed texts and are not intended to be self-instructional instruments. They provide the necessary guidance and background information to permit the individual soldier to acquire new knowledge and skills through the additional assistance of practical exercises and instructor guidance and evaluation. A few of the lesson booklets, however, were designed for use by the individual soldier on his own (the two encrypting lessons and four of the land navigation lessons.)

### Pilot Test of Packages

After all the TTPs had been prepared, they were pilot tested to determine whether or not they were workable in the hands of NCO trainers, and to assess their completeness, validity, and accuracy of content. Pilot testing the booklets was done using five experienced NCOs. They were given an intensive training period on the content and use of the TTPs. After a page-by-page review of each booklet by its developer and an NCO, the NCOs, each using three or four soldiers of various levels of task proficiency, conducted the instruction. It was determined that the booklets were quite adequate for training purposes, and only minor modifications were necessary. Two critical variables were identified during these pilot tests: (1) the knowledge, skills, and training proficiency of the trainers, and (2) the effectiveness of training managers in providing the necessary conditions and material support for learning.

### RESEARCH

A research team, in support of the overall developmental objectives of the project, undertook the following studies to develop greater knowledge in areas directly related to the design and management of the IETS.

### Personnel Turbulence

The relationship between turbulence and an effective extension training system is not clear. Undoubtedly, the greater the turbulence the less cost effective the training but, on the other hand, it may well be that a better designed and managed individual extension training system would lead to a reduction in turbulence. With increased familiarity with the nature of the existing individual training system and the problems that would be encountered in introducing a new one, it was decided that turbulence would be the major independent variable in the field test of the new system. In order to include it as variable, however, it became necessary to derive a measure or index which would reflect the stability and availability for training of personnel in a unit. Accordingly, a study was designed and is presently being conducted which will provide "hard" data for the derivation of a unit personnel stability/ availability index.

Data are being obtained from two primary sources. The first source is the unit manning reports and records which provide information about the flow of men in and out of a unit, as well as shift in duty position assignments within a unit. The second source is the firsthand observation of the daily activities of squads (selected on the basis of the characteristics described below) from four companies. A trained obserer stays with a squad for the entire duty day, recording at fifteen minute intervals the activity each squad member has been engaging in during that fifteen minute interval. The observer also records, for each man in the squad, his daily attendance, his daily duty position assignment, and the amount of time he is away from the squad and where he has gone.

The sample drawn for this study has the following characteristics:

- 1. Drawn from four infantry battalions one company from each.
- Drawn from the types of companies that contain most of the 11Bs and 11Cs; rifle companies and combat support companies.
- 3. Reflects the existing ratio of three rifle companies to one combat support company three of the companies in the sample are rifle companies; the fourth is a combat support company.

- 4. Drawn from six different platoons within the four companies: two different platoon headquarters in light mortar and heavy mortar platoons; eight different squads distributed among rifle, weapons, scout, light mortar, and heavy mortar squads.
- 5. Contains grades E2 through E6.
- 6. Contains a range of 11B and 11C duty positions from rifleman and ammunition bearer to squad leader and fire direction computer.
- 7. Reflects the relative number of types of squads containing 11B and 11C personnel.
- Includes critical platoon headquarters positions, such as forward observer.

Each company is being observed for a total of 12 weeks to insure representation of a reasonable range of training activities.

From these two sources of information, an index of stability is being developed which reflects a) monthly manpower stability, b) daily personnel stability/availability, and c) daily utilization of potential training time. This index can be applied to a unit of any size from a squad to a division. It will be derived from the units used in the field test in order to determine whether the attempts to control for turbulence were, in fact, successful. If so, it will be possible to explore the relationship between turbulence and the modifications proposed for the individual extension training system. Findings of the turbulence study are being reported in a separate companion document to the present report.

### Cost-Effective Screening Tests

One characteristic of an efficient training system is that resources are not spent on training that is not needed. A logical way to avoid unnecessary training is to give training candidates screening tests that discriminate between those who are already skilled and those who need training.

The purpose of this research is to develop testing procedures which minimize the costs of screening while maintaining suitable scoring accuracy of validity.

Four principle forms of screens are to be tested:

- Simply asking the individual, or his supervisor, if he can perform a task according to its conditions and standards;
- 2. Administering a written or convenient simulation test;
- 3. Administering a partial performance test;
- 4. Administering a full performance test.

The full performance test will serve as the validity criterion. Testing preparation and administration time will be estimated for each type of screen. In addition, an accounting of special resources required for testing made.

Data on the efforts of the various screening alternatives is to be coılected in conjunction with the field tests to be made of the IETS. Findings of the study will be reported in a companion document to the present report.

### Incentives For Learning

Another area related to individual training is identifying ways of motivating soldiers to maintain current skills and acquire new skills to achieve greater job proficiency. To this end, a questionnaire was designed and administered to 218 enlisted men (between E2-E5) who were assigned to infantry units on post. The questionnaire was an attempt to measure a number of different dimensions of attitudes toward training. These dimensions included: (1) the attractiveness or value attributed to various tangible incentives for achieving skill proficiency, and (2) satisfaction derived from training activities.

The results showed among other things that incentives that gave the soldier increased control over his destiny (autonomy) were judged about as valuable as incentives that provide monetary rewards for training proficiency. Other results showed significant positive relationship between a soldier's satisfaction with training and his tendency to judge proposed incentives as attractive or valuable. Details of the study are to be presented in a separate, companion document to this report.

### FIELD TESTING

### Design

At the writing of this report, plans are in final form for the field testing of the prototype version of the IETS. The purpose of this test is to study the operational feasibility of the new IETS using prototype (a) evaluation instruments, (b) training packages, including guidelines for instruction and performance evaluation, and (c) training management/record keeping procedures. Data will be collected to assess the effectiveness of all three components over a three-month field-test period.

Because turbulence was found to be such an important factor, the field testing conditions will be varied to set turbulence at high, moderate, and low levels over the field test period. Turbulence will be controlled as follows:

- Company "C" HIGH TURBULENCE. No modification in operations; no attempt to reduce normal turbulence; squad integrity encouraged.
- Company "B" MODERATE TURBULENCE. Internal turbulence will be reduced by constructing the weekly schedule so that:
  - No special duty within the company will take a soldier away from his squad.
  - 2. Work details will be done by squad.
  - 3. Administrative duty will be done by squad.
  - 4. Appointments will be held to a scheduled block of time for each squad.
  - Members of the rifle and mortar platoons will serve in their assigned squad positions.
- Company "C" LOW TURBULENCE. Reduction of internal turbulence will be as for Company "B" (1-5 above); external turbulence will be reduced by:
  - Eliminating work details from higher Hq.
  - 2. Eliminating guard details from higher Hq.
  - Relief from parades, ceremonies, and administrative details.

- 4. No personnel reassignments in and out of company within the division.
- 5. No special duty outside the company.
- 6. No special schools outside the company.

An attempt will be made to maintain equivalent and optimal conditions in all test companies with respect to several other variables that are likely to affect training effectiveness (e.g., incentives, instructor preparation, time scheduled for individual training).

Field test participants will be the personnel from three rifle companies of the 7th Division. The companies will come from one battalion. For test purposes, a less seasoned battalion and one not scheduled heavily for practice or performance of ARTEPs during the field test perios, will be selected if at all possible.

Each company (composed of three rifle platoons and one mortar platoon) will undergo a different turbulence condition (A, B, C). Members of the rifle squads and weapons squads of each rifle platoon will comprise the 11B sample; squad members of the 81 mm mortar platoon will comprise the 11C sample.

Squad leaders will be the instructors/record keepers for their squad members. Squad integrity will be sought; i.e., the value in keeping the entire squad together for training will be emphasized.

### Administrative Preparations

Prior to the start of data collection, officers and NCOs of the three experimental companies, plus the CO and S-3 of the experimental battalion, will be given a series of short orientation and training sessions. These sessions will be scheduled a month in advance of the start of the field test. Total accumulated time spread over the month should not exceed four hours for commanders, twenty hours for training managers and instructors, and thirty hours for company project officers.

Training and transition to the field test conditions will occur over the month prior to the beginning of the test so that all three companies will be prepared for the test and will be in the appropriate turbulence condition when data collection begins.

### Data to be Collected

Several classes of data on the performance of 11B and 11C participants will be collected. This includes performance data on the nine prototype Task Training Packages (TTPs) representing Skill Levels 1 and

2 of MOS 11B and 11C. As listed in Appendix C, the nine TTPs provide instruction for 37 separate tasks or lessons. Due to overlapping requirements, 34 of the lessons are applicable to MOS 11C and 24 for MOS 11B.

The following data will be collected on a weekly basis.

- Number of trainees qualified to perform the tasks called for in the lessons comprising the nine prototype packages.
- 2. Number of trainees not qualified to perform the tasks.
- Number of trainees whose performance has not yet been observed.
- 4. Time intervening between initial screening and achieving qualification on each task lesson.
- Squad leaders "error" rate in qualification certification as determined by quality control checks by company training managers.
- 6. Amount of time squad leaders find they have their squads together for individual training/testing.

Participants' experiences and reactions to the materials and procedures will also be sought. Interview/questionnaire data from field test participants at all levels will be collected, using the instruments in Appendix G, to assess their experience with, and reactions to, all components of the system. Data will be collected as follows:

- Writen questionnaire to 11B and 11C participants; posttest; N≃400.
- Written questionnaire to squad leader instructors; pre- and post-test; N~45.
- Written questionnaire to platoon leader/platoon sergeant/ training NCO training managers; pre- and post-test; N≈15.
- Personal interviews with battalion and company commanders and project officers; over course of field test as experience builds and data accumulate; N≃8.

### APPENDIX A

### INTERVIEWS

Level of Interviewee	No. of persons present	Interviewers	Date
Asst Div CO	Asst Div CO plus any staff he may request		
Div G-3	G-3 plus any staff		
Bde CO (1)	Bde CO plus any staff (e.g., his S-3)		
Bde CO (2)	Bde CO plus any staff (e.g., his S-3)		
Bde S-3 (1)	S-3 and any staff (see above)		
Bde S-3 (2)	S-3 and any staff		
Bn CO (1)	Bn CO plus any staff (e.g., his S-3)		
Bn CO (2)	Bn CO plus any staff (e.g., his S-3)		
Bn S-3 (1)	S-3 and any staff		
Bn S-3 (2)	S-3 and any staff		
Co CO	4 Co COs (all from one Bn, or from 2 or more)		
Trng NCO	4 Trng NCO (all from one Co or from several)		
Plt Ldr	8 Plt Ldr (from several Co)		
Plt NCO	8 Plt Ldr (from several Co)		
Sqd Ldr	8 Sqd Lrd (from one Co)		

### INTERVIEW GUIDE

### Assistant Division Commander

Area I: ARTEPs as a Guide to Training

General question: What is your general approach to planning individual training?

Follow-up: How is the decision made on what collective infantry combat training to give?

Are ARTEPs used to guide training?

How well do ARTEPs serve your training purposes?

Are there any problems using ARTEP?

How is it decided what individual training to give?

Do the ARTEPs provide any basis for deciding about individual training?

Have individual tasks been identified for the ARTEP missions (as opposed to unit tasks)?

How does the division's individual training system support unit performance in the ARTEPs?

Area II: Individual training program

General question: How is individual training conducted in the division?

Follow-up: How does the division train individual skills?

How does the division's individual training system support career advancement?

How do you see the new emphasis on individual training in the division (EPMS, SQT) affecting unit training?

Area III: Individual Evaluation

Ceneral question: What are the division's plans for implementing EPMS and SQTs?

Area IV: Record keeping.

Area VIII: Training Resources

General question: How adequate are your training resources? (Space, time, equipment, money, supplies, manuels, etc.)

### INTERIM GUIDE

### Division G-3

I

How does the training system work in this division?

How is the decision made on what infantry combat training to give?

Are ARTEPs used to guide training?

How well do the ARTEPs serve your training needs?

Are there any problems when using ARTEPs to guide training?

How is it decided what individual training to give?

Do the ARTEPs provide any guidance for making decisions about individual training?

### II

How does the division go about training men in the individual skills they need?

How does the division's individual training system support unit training for the ARTEPs?

How does the division's individual training system support career advancement in the EPMS?

How do you see the new emphasis on individual training (EPMS, SQT) affecting unit training?

### III

What are the division's plans for implementing EPMS and SQTs?

Do you foresee any problems with implementing these two programs?

### IV

What system, if any, does the division have for keeping records of the individual skills?... proficiency of the men?

What records, if any, are received about individual skills acquired in BCT/AIT?

What records, if any, are (or will be) collected about individual skills acquired in the division?

v

Is the division using any <u>new</u> approaches to conduct (individual) training? What? How? When? Where? Why? Pro? Con?

TEC?

Peer Instruction?

Television?

Tape/Slide?

Role Playing?

SCOPE?

Simulation?

Learning Centers?

### VII

How adequate are the division's resources for conducting (individual) training?

Trained personnel

Space

Time

Equipment and weapons

Facilities

Publications

Training aids

## Brigade Commanding Officer

1. Individual tasks that comprise an ARTEP

### Open

How does your training system work?

### Other

How is the decision made on what infantry combat training to give?

Are ARTEPs used to guide training?

How well do ARTEPs serve your training purposes?

Are there any problems using ARTEP?

How is it decided what individual training to give?

Do the ARTEPs provide any basis for deciding about individual training?

2. Individual Training

### 0pen

How does the brigade train individual skills?

### Other

How does the brigade's individual training system support unit performance in the ARTEPs?

How does the brigade's individual training system support career advancement?

How do you see the new emphasis on individual training in the brigade (EPMS, SQT,) affecting unit training?

## 3. Evaluation of Individual Performance

### Open

What are the brigade's plans for implementing EPMS and SQTs?

## 5. Use of Training Technology

## **Open**

Are new approaches being used to conduct training in the unit?

## Other

What are they? (TEC, Peer Instruction, Simulation, TV slide/tape programs, role playing, learning centers, etc.?)

Which of the above approaches have you found to be useful? How? Difficulties?

## 8. Training Resources

## Open

How adequate are your training resources? (Space, time, equipment, money, supplies, manuals, etc.)

# Brigade S-3

Area: Analysis of ARTEP Unit Tasks into Individual Tasks

Opening Question:

How does your training system work?

## Subsequent Questions:

How is the decision made on what infantry combat training to give?

Are ARTEPs used to guide training?

How well do ARTEPs serve your training purposes?

Are there any problems using ARTEPs?

How is it decided what individual training to give?

Do the ARTEPs provide any basis for deciding about individual training?

Area: Current goals, plans and practices in preparation of individual for ARTEPs and SQTs, and other training.

## Opening Question:

How does the Brigade train individual skills?

## Subsequent Questions:

How does the Brigade's individual training system support unit performance in the ARTEPs?

How does the Brigade's individual training system support career advancement?

How do you see the new emphasis on individual training (EPNS, SOT)

affecting unit training?

Area: Current goals, plans and practices in individual evaluation (ARTEDS, SQTS, and other training.

### Opening Question:

What are the Brigade's plans for implementing EFMS and SQTs? Subsequent Questions: Area: Current goals, plans and practices in individual proficiency record keeping.

## Opening Question:

Do you have any plans or objectives for new record keeping in times ahead?

Subsequent Questions:

Do you have any plans for record keeping for EFES?

Area: Current developments in training technology including TEC, simulations, self-study, etc.

## Opening Question:

Are new approaches being used to conduct training in the unit?

Subsequent Questions:

What are these new approaches? (TEC, Peer Instruction, Simulation, TV slide/tapes, role-playing, learning centers, etc.)?
Which of the above approaches have you found to be useful? How? What difficulties have you had?

Area: Training resources.

## Opening Question:

How adequate are your training resources? (Training areas, time, equipment, funds, supplies, training manuals, etc.)

### Battalion Commander

- I.A. How does your training system work?
  - 1. How is the decision made on what infantry combat training to give?
  - 2. Are ARTEPs used to guide training?
  - 3. How well do ARTEPs serve your training purposes?
  - 4. Are there any problems using ARTEPs?
- I.B. How is it decided what individual training to give?
  - 1. Do the ARTEPs provide any basis for deciding about individual training?
- II.A. How does the battalion train individual skills?
- II.B. How does the battalion's individual training system support unit performance in the ARTEPs?
- II.C. How does the battalion's individual training system support career advancement?
- II.D. How do you see the new emphasis on individual training in the battalion (EPMS, SQT) affecting unit training?
- III.A. Within the battalion, are individual skill or proficiency levels evaluated? How? Are any changes anticipated?
  - 1. Are performance tests used for individual evaluation?
  - 2. Where do they come from?
  - 3. Who administers them? On what basis are they qualified to do this?
  - 4. How is this information used?
- III.B. What are the battalion's plans for implementing EPMS and SQTs?

- IV.A. Do you have any plans or objectives for record keeping in time ahead? EPMS?
- V.A. Are new approaches being used to conduct training in the unit?
  - 1. What are they? (TEC, Peer Instruction, Simulation, TV slide/tape programs, role playing, learning centers, etc.?)
  - Which of the above approaches have you found to be useful? How? Difficulties?
- VI.A. How-adequate are your training resources? (Space, time, equipment, money, supplies, manuals, etc.)

#### Battalion S-3

- I. Area Analysis of ARTEP tasks into individual tasks
  - 1. How does your training system work?
  - 2. How is the decision made on what infantry combat training to give?
  - 3. Are ARTEPs used to guide training?
  - 4. How well do ARTEPs serve your training purposes?
  - 5. Are there any problems using ARTEP?
  - 6. Do the ARTEPs provide any basis for deciding about individual training?
  - 7. How is it decided what individual training to give?
  - 8. Have individual tasks been identified for the ARTEP missions (as opposed to unit tasks)?

## II. Area - Individual Skill Preparation

- 9. How does the battalion train individual skills?
- 10. How does the battalion's individual training system support unit performance in the ARTEPs?
- 11. How does the battalion's individual training system support career advancement?
- 12. What support does the unit give to a soldier who wants to prepare for MOS tests?
- 13. What are the battalion's plans for implementing EPMS and SQTs?
- 14. How do you see the new emphasis on individual training (EPMS, SQT) affecting unit training?

#### III. Area - Individual Evaluation

- 15. Within the battalion, are individual skill or proficiency levels evaluated? How? Are there any changes anticipated?
- 16. Are performance tests used for individual evaluation?
- 17. Where do these tests come from?
- 18. Who administers them? On what basis are they qualified to do this?
- 19. How is this information used?

- IV. Area Record Keeping
  - 20. Do you have any plans or objectives for record keeping in times ahead? EPMS? ARTEP?
- V. Area Training and Educational Technology
  - 21. Are new approaches being used to conduct training in the unit?
  - 22. What are they? (TEC, peer instruction, simulation, TV slide/ tape programs, role playing, learning centers, etc?)
  - 23. Which of the above approaches have you found to be useful? How? Difficulties?
- VI. Area Training Resources
  - 24. How adequate are your training resources (individual skills)? (Space, time, equipment, money, supplies, manuals, etc.)

### Company Commander

Area I: ARTEPs as a Guide to Training

General question: How do you plan individual training for your company?

Follow-up: How is the decision made on what collective infantry combat training to give?

Are ARTEPs used to guide training?

How well do ARTEPs serve your training purposes?

Are there any problems using ARTEP?

How is it decided what individual training to give?

Do the ARTEPs provide any basis for deciding about individual training?

Have individual tasks been identified for the ARTEP missions (as opposed to unit tasks)?

Area II: The Training of Individuals

General question: How is training conducted?

Follow-up: Who is doing the training at the lowest level? On what basis are they qualified to do this?

What assurance is there that trainers have the skills themselves and are able to train others effectively?

Do you evaluate the competency of your trainers on a regular basis: with respect to (a) their own performance skills, and (b) their ability to teach others the skills?

Area III: Evaluation of Individual Performance

General question: How is individual skill and proficiency evaluated?

Follow-up: How is this information used?

Are performance tests used for individual evaluation?

Where do they come from?

Who administers them? On what basis are they qualified to do this?

Who is doing the training at the lowest level? On what basis are they qualified to do this?

Area IV: Record Keeping (Storage and Retrieval)

General question: Are records kept on the proficiency and progress of the individual soldier? Systematic?

Follow-up: What information is recorded? Who keeps the records? Where are they kept?

Do you see any value in record keeping? What?

Area V: Technology

General question: Are new approaches being used to conduct training in the unit?

Follow-up: What are they? (TEC, Peer Instruction, Simulation, TV slide/tape programs, role playing, learning centers, etc.?)

Which of the above approaches have you found to be useful? How? Difficulties?

Area VIII: Training Resources

General question: How adequate are your training resources? (Space, time, equipment, money, supplies, manuals, etc.)

Follow-up: What support does the unit give to a soldier who wants to prepare for MOS tests?

## Training NCO

I

How is the decision made on what infantry combat training your company will give?

Are ARTEPs used to guide training?

How well do ARTEPs serve your training needs?

Are there any problems when using ARTEPs to guide training?

How is is decided what individual training to give?

Do the ARTEPs provide any guidance for making decisions about individual training?

Have the tasks or job performed by each person in a squad during each phase of an ARTEP mission been identified? How?

II

Who conducts training (teaches classes) in your company?

How well do these trainers know their job? How do you know?

How good a job do these men do as teachers/instructors? How do you know?

What kind of help does the company give these men when they have to conduct a class? Lesson plans? Training aids?

III

How does your company know if a person can or cannot do his job?

Are tests administered?

Where do the tests come from?

Who administers the tests?

Are the test administrators given any special training?

What happens if a person is felt to be qualified? Unqualified?

IV

Are any records kept of the individual skill of the men in the company?

Where does the information come from?

How is it kept current?

What information is recorded?

Who keeps the information? Where is the information kept?

Who has access to the information?

How is the information used?

Do you see any value in keeping a record of individual skills?

Are there any plans for keeping individual skill records as part of the EPMS?

V

Is the company using any <u>new approaches to conduct (individual) training?</u>
What? How? When? Where? Why? Pro? Con?

TEC?

Peer Instruction?

Television?

Tape/Slide?

Role Playing?

SCOPE?

Simulation?

Learning Centers?

## VII

How adequate are the company's resources for conducting (individual) training?

Trained personnel

Space

Time

Equipment and weapons

Facilities

Publications

Training aids

What support does the company give to a man who wants to prepare himself for his LDS tests?

Information

Advice/counseling

Time-off

## Platoon Leader

## 1. Individual Tasks That Comprise an ARTEP

### <u>Open</u>

How is the decision made on what infantry combat training to give?

### Other

Are ARTEPs used to guide training?

How well do ARTEPs serve your training purposes?

Are there any problems using ARTEP?

How is it decided what individual training to give?

Do the ARTEPs provide any basis for deciding about individual training?

Have individual tasks been identified for the ARTEP missions (as opposed to unit tasks)?

### 2. Individual Training

## Open

Who is doing the training at the lowest level? On what basis are they qualified to do this?

### Other

What assurance is there that trainers have the skills themselves and are able to train others effectively?

Do you evaluate the competency of your trainers on a regular basis with respect to (a) their own performance skills, and (b) their ability to teach others the skills?

### Evaluation of Individual Performance

### Open

Within the company, are individual skill or proficiency levels evaluated? How? Are any changes anticipated?

### Other

How is this information used?

Are performance tests used for individual evaluation?

Where do they come from?

Who administers them? On what basis are they qualified to do this?

# 4. Record Keeping

## Open

Are records kept on the proficiency and progress of the individual soldier? Systematic?

### Other

What information is recorded? Who keeps the records? Where are they kept?

Who has access to the records? How is the information used? Do you see any value in record keeping? What?

## 5. Use of Training Technology

### **Open**

Of the several approaches to conduct training in the unit, which have you found to be useful? How? What difficulties are there?

## 8. Training Resources

# Open

How adequate are your training resources: (space, time, equipment, money, supplies, manuals, etc.)

## Other

What support does the unit give to a soldier who wants to prepare for MOS tests?

### Platoon NCO

Area: Analysis of ARTEFs Unit Tasks into Individual Tasks.

## Opening Question:

How is the decision made on what infantry combat training to give?

# Subsequent Questions:

Are ARTEPs used to guide training?

How well do ARTEPs serve your training purposes?

Are there any problems using ARTEPs?

How is it decided what individual training to give?

Do the ANTEPs provide any basis for deciding about individual training?

Have individual tasks been identified for the ARTEP missions (as opposed to unit tasks)?

Area: Current goals, plans and practices in preparation of individual for ARTEPs, SQTs, and other training.

## Opening Question:

Who is doing the training at the lowest level? On what basis are they qualified to do this?

## Subsequent Questions:

what assurance is there that trainers have the skills themselves and are able to train others effectively?

Do you evaluate the competency of your trainers on a regular basis with respect to: (a) their own performance skills, and (b) their ability to teach others the skills?

How often are you required to teach? What subjects? How many men at one time? What setting?

Were they all from the same unit?

Have you ever been trained to teach? Were you trained to give performance oriented training?

What training methods do you use?

Are you getting the support you need in your teaching? What kind of support do you need to do a better job?

Who decided who and what you teach?

Area: Current goals, plans and practices in individual evaluation (ARTEFs, SQTs, and other training)

## Opening Questions:

Within your platoon, are individual skill or proficiency levels evaluated?

How? Are there any changes anticipated?

# Subsequent Questions:

How is this information used?

Are performance test used for individual evaluation?

Who administers them? On what basis are they qualified to do this?

Do you evaluate other soldiers? When? How often, etc.?

How do you do it? Have you received any training or other guidance in how to evaluate?

What do you need to make your evaluating (testing) more effective?

Area: Current goals, plans and practices in individual proficiency record keeping.

# Opening Questions:

Are records kept on the proficiency and progress of the individual soldier?

Is this done in a systematic manner?

# Subsequent Questions?

What information is recorded? Who keeps the records? Where are they kept?
Who has access to the records? How is the information used?

Do you see any value in record keeping? What is the value?

Area: Current developments in training technology including TEC, simulations, self-study, etc.

## Opening Question:

Are new approaches being used to conduct training in the unit?

## Subsequent Questions:

What are they? (TEC, Feer Instruction, Simulation, TV slide/tapes, roleplaying, learning centers, etc.?)

Which of the above approaches have you found to be useful? How? What difficulties have you encountered?

Area: Training resources.

## Opening Question:

How adequate are your training resources? (Praining areas, time, equipment, supplies, training manuals, etc.)

## Subsequent Questions:

What support does the unit give to a soldier who wants to prepare for a MOS test?

### Squad Leader

- II.A. How does the company, platoon, and squad train individual skills?
  - 1. How many hours did you spend getting individual training last month?
  - 2. Who was conducting the training? On what basis are they qualified to do this?
  - 3. How many students were in the classes with you (on the average)? Were they all from the same unit or different?
  - 4. What was taught? How much did you already know?
  - 5. How was it taught?
  - 6. What do you think was especially good or bad about these classes?
  - 7. What did you gain from this training?
- II.B. Are you doing any kind of self-study now?
  - 1. Why? What's in it for you?
  - 2. What are you studying?
  - 3. Are you working on your own?
  - 4. What self-study program are you using?
  - 5. How does it work? How do you like it? Why? How well are you doing?
  - 6. Are you aware of other self-study programs? Which ones?
  - 7. Do you plan to use any of them? Which ones? Why?

- 8. Where do you work on self-study?
- 9. How does your unit support your self-study efforts? (Time, space, coordiantion, counseling, equipment, incentives, etc)
- II.C. How often are you required to teach? What subjects? How many men at one time? What setting?
  - 1. Were they all from the same unit?
  - 2. Have you ever been trained to teach? Performance oriented training?
  - 3. What training aids do you use?
  - 4. Are you getting the support you used in your teaching? What kinds of support do you need to do a better job?
  - 5. Who decided who and what you teach?
- III.A. Within the division, are individual skill or proficiency levels evaluated? How? Are any changes anticipated?
  - 1. Are your being tested as part of your training? How? On What? What do you think of the tests?
  - 2. Are you evaluated on how well you perform the skills you learned in individual training?
  - 3. How is this done? Who does it?
  - 4. Are you evaluated on your individual performance in an ARTEP?
  - 5. How is it done? Who does it? Do you get feedback?
  - 6. Are performance tests used for individual evaluation? How is this inforantion used?
  - 7. How are test results used to help you improve your performance?

### III.B.

- Do you evaluate other soldiers? When? How often, etc?
- 2. How do you do it? Have you received any training or other guidance in how to evaluate?

- 3. What do you need to make your evaluating (testing) more effective?
- III.A. What information is recorded? Who keeps the records? Where are they kept?
- 1. Are records kept on the proficiency and progress of the individual soldier? Systematic?
  - 2. Who has access to the records? How is the information used?
  - 3. Do your training records from BCT/AIT come with you to your unit?
  - 4. What training records come from BCT/AIT down to the unit? (G-3)
  - 5. Is there a record kept of your performance on a TEC lesson?
  - 6. Do you see any value in record keeping? What?
- IV.A. Which of the following have you found to be useful? How?
  Difficulties? TEC, SMART books, TV, simulation, peer instruction, learning center, other training aids.
- V.A. How adequate are your training resources? (Space, time, equipment, money, supplies, manuals, etc)
  - 1. What support does the unit give to a soldier who wants to prepare for MOS tests?

### IMPRESSIONS GAINED FROM INFORMAL INTERVIEWS

# TOPIC 1: ARTEPs and Derivation of Individual Tasks

## Attitude Toward ARTEPs, Especially Compared to ATTs

Division through company levels expressed approval of the ARTEP system, stressing variously its performance-based nature, its emphasis on meeting an objective or concentrating on the mission, and its emphasis on training rather than testing. Levels below the company reported specific details rather than overall opinion of ARTEP. For example, one comment was that deficiencies discovered during ARTEP exercises could not be adequately corrected because men were being pulled out for details, thus interrupting the training schedule. Another comment concerned motivational problems in the larger unit ARTEP exercises. Some men felt that their role in these large unit exercises was not important and they were repeating activities they had done many times before in smaller unit ARTEPs.

# Identification of Individual Tasks for ARTEP Training

Division level sees the ARTEPs as definitive enough to determine what tasks to include in ARTEP training for units at the lowest level. The identification of unit tasks and selected individual tasks, in the form of Letters of Instruction, Training Notes, and other guidelines, occurs predominantly at battalion level, with guidance from brigade level and, in some cases, in association with the company commanders. The company commanders then take this guidance from battalion and translate it into detailed training programs for their units.

Units rely on other sources than the ARTEP to identify or derive individual tasks to include in ARTEP training. One brigade commander reported that one of his battalions had used the ARTEP to derive individual tasks via DIV SKILL methods\*. This was the only reported use of the ARTEP for this purpose, while several individuals reported that the ARTEPs were too general for this task. The most common source used

<sup>\*</sup> DIV SKILL methods use task analysis to identify each phase of a mission and then, for each phase, to identify the tasks performed by each individual during that phase.

to identify individual tasks was the ATTs. Other common sources were FMs and personal experience. In addition, one or more individuals reported using Army Subject Schedules, ARs, Letters of Instruction, Training Notes, AIT task lists, lesson plans from AIT and National Guard courses, EIB Regulations, Patrolling Handbook, Ranger Handbook, and the Soldiers' Manual.

### Criteria and Checklists for ARTEP Evaluations

All battalions felt a need to amplify the evaluation guidance provided in the ARTEP. This amplification took the form of letters of instruction, outlines, checklists, and training notes which specified, in more detail than was found in the ARTEP, the unit and individual tasks which were to be carried out in order to accomplish the ARTEP mission and the guidelines for evaluating those tasks. In preparing these documents, the battalion staff made use of former ATTs, FMs, and their past experience. In some instances, company officers participated in the preparation of these documents. The documents, which were also used by company officers as guides in planning and conducting training for ARTEPs, were used by rating personnel to assist in observing, recording, and critiquing performance on the ARTEPs.

# Operation of ARTEP Training

Division, brigade, and battalion levels see the ARTEP training as flexible, giving considerable latitude in planning training at the battalion and company levels. However, one brigade S-3 and a battalion commander did indicate that the overall scheduling of training areas and facilities does become relatively fixed. Company, platoon, and squad levels often report time constraints - training schedules that move at too fast a rate and thus do not allow sufficient time to correct deficiencies in one aspect of training before having to move on to another one. Personnel at the platoon and squad levels, in particular, feel that the training schedule is too inflexible and that they have little influence in making changes.

### Additional Comments

One battalion commander sees a major problem when the pattern of ARTEP testing changes from a sequential pattern to one of testing at random. In the sequential pattern, squad ARTEPs are followed by platoon ARTEPs, then by company, and finally battalion size ARTEPs. Training can focus on successively higher units. However, the ARTEP encourages "concurrent, multi-echelon" training and evaluation\* which would produce

<sup>\*</sup>See ARTEP 7-15, Test Edition, p. 2.

a pattern of testing at random - a company ARTEP could be scheduled before a squad ARTEP, for example. The battalion commander feels that such a situation would make it difficult to maintain all skill levels, for the skill levels are maintained by the training focus, and he cannot focus on all levels at once.

# TOPIC 2: Individual Training

# "Driving Force" and Scheduling of Individual Training

Division level does not schedule any individual training, and indicates that the priority is on the unit mission. The brigades report that they supply guidance, but whatever individual training takes place is the function of battalion and lower levels. Battalion, company, and platoon levels all report lower priority given to individual training than to unit training.

T weeks are primarily devoted to unit training. Most individual training, including some preparation for the EIB tests, takes place during non-T weeks, when little time is available and many difficulties are entailed in using that time - difficulties such as men pulled off for details and lack of time to issue weapons.

Division level sees no conflict between both EPMS and ARTEP "driving" the system, but one battalion commander sees incongruities between ARTEP mission tasks and SQT individual tasks; in an ARTEP exercise, every man does not perform every individual task listed in the Soldiers' Manual for his MOS. These incongruities might lead to jeopardizing soldiers' promotions as a result of training only on the tasks used in the ARTEPs.

### Operation of Individual Training

The range of responses indicates that the role of individual training in the total training system is not clearly defined. Two contexts of individual training emerged, especially as seen by the brigade and battalion levels. These were (1) training connected with ARTEP preparation and exercises, and (2) training connected with records of individual proficiency - EIB tests, weapons qualifications tests, and physical fitness tests. A third context of training, that of training for advancement, is apparently the responsibility of the individual himself.

The reported size of the training group for individual training varied from a few men, to squad, to platoon, to company. Platoon size and larger appear to be the most frequent size. The types of training during which individual training took place were as follows:

Individual training to prepare for ARTEPs.

Classes and exercises, including SCOPES exercises.

Various kinds of leadership training for junior leaders.

Division-level schools: PNCOC, ITC, BLC, NCOA.

Battalion-level classes and training packages on various topics.

Company-level classes on various topics.

CPXs for battalion staff.

TEWTs.

 Individual training, in unit-size groups, directed toward qualification tests - EIB, PT, weapons, CBR, et cetera.

Organized training for advancement apparently does not exist within the unit, although EMs may be given duty time to prepare for the MOS test. This decision, as well as the amount of duty time allowed, is ultimately the responsibility of the company commander, but may be delegated to the platoon sergeants or squad leaders. In addition, NCOs frequently reported instances of very short notice of upcoming MOS tests. Senior NCOs report they are expected to prepare for MOS tests on their own time.

## Problems of Individual Training Reported

Lack of time was the most frequently reported problem; turbulence was second. Another problem often mentioned was that junior leaders were inexperienced in managerial and training skills, especially in dealing with personnel problems, as opposed to tactical problems. Other reported problems were loss of skills, inflexible training schedules that moved too fast, insufficient time for cross training, logistic problems with equipment not always available when needed, and junior leaders who are inexperienced in technical job skills because they were reassigned from another MOS.

### Cross Training

One of the reported problems of individual training was insufficient time for cross training. Time does not permit formal training in a secondary MOS. However, some informal cross training does take place. For example, some men spend a day with another type squad. In addition, "cross training" in leadership skills is a concern of all units. Some units have a "Squad Leader for a Day" program; others give junior leaders responsibilities in teaching classes to their men. Cross training has not received emphasis due to the priority placed on each soldier learning to perform in his primary duty position.

# TOPIC 3: Individual Evaluation

### Formal vs Informal Evaluation

Brigade level and below report that the company commanders do not have the time or personnel to formally test individual performances.

Company commanders, platoon sergeants, and squad leaders all report that they know the abilities of their men. However, some of the platoon sergeants had doubts about the ability of some squad leaders to rate their men, due to inexperience and frequently being away on details, giving them less opportunity to know their men's abilities. At all levels, the knowledge of subordinates' abilities was based largely on informal observations and not on formal individual evaluation or testing. Company commanders also used men's records and their reputation in the company when making evaluations.

## "Sweepstakes" Type Competition

"Sweepstakes" competition is a battalion level system of administering performance tests for a variety of individual skills. Tests for the various skills are given at different locations or stations; men move from one station to another in a manner similar to moving from one booth to another at a county fair. Division and brigade levels see these "stakes" as valuable tools for evaluating individual performance. However, the "stakes" were held during the early days of activation of each battalion to determine levels of individual proficiency prior to the ARTEP training. Most battalions report that they have not used them since, and have no plans to use them in the future. Time is a big factor; one battalion reported that it did not even have time to give diagnostic testing such as the "stakes" to new unit arrivals.

### EIB (Expert Infantry Badge) Testing

For those units which have undergone EIB testing, this was the one topic under "Individual Evaluation" that all levels mentioned. Division, brigade, and battalion levels see the EIB providing evaluations of individual performance. Battalion and company levels point out that the EIB standards are higher than expected in combat - so high that some men do not try. Company levels report time spent in preparing for the EIB varied from four to eight training weeks of part-time training. Platoon, squad, and individual levels all reported that the test standards were not the same as those in effect during training and that the standards emphasized sequence of operation rather than final result; e.g., a man could reassemble a rifle so that it was operational, but if he did not follow the sequence in the test standards, he failed.

# Individual Evaluation During ARTEP Exercises

Division level sees the possibility of the ARTEPs being used as a means for some evaluation of individual skills: speed marches, 81 mortar firing, and weapons firing on tactical ranges.

All levels indicated that individual evaluation during an ARTEP would be a problem, primarily from a management standpoint - the number of evaluators required and the time to do it. Leaders can be evaluated, but squad leaders do not have the time to evaluate the men under them.

# Other Types of Individual Evaluation Mentioned

- Weapons Qualification Tests
- Physical Fitness Tests

### Plans to Implement EPMS and SQT

So far, the division and lower units have not received enough definitive guidance to implement EPMS and the SQTs.

## TOPIC 4: Record Keeping

# Individual Records

There is at present no formal maintenance of individual training records, other than PT scores, weapons qualification scores, and MOS test scores. What records are now kept, are kept by the squad leaders in a notebook and by the training NCOs on unofficial record sheets.

## Squad Leaders's Notebook

The squad leader's notebook usually contains personal data on each man in the squad. Notebooks may also contain a number of scores including the performance records on the EIB, PT, MOS, and weapons qualification. Some squad leaders indicated difficulty in getting weapons scores they needed for their notebooks. Platoon leaders mentioned that an SOP exists on squad leaders' notebooks, but none had reported seeing this document.

### TNCO Records

The TNCO keeps his records of scores, schools or classes attended, etc., on a form which he makes up himself. There was once an official form for this purpose, but it no longer exists. Some TNCOs said they would prefer using an official form. The TNCO records are much more training oriented than the squad leader's notebooks.

### Formal Record Keeping System

All personnel were generally opposed to a formal record keeping system for all individuals. Some of the problems they felt would interfere with such a system are too much paper work, lack of time, lack of personnel qualified to make performance judgements at the lower levels, loss of skills, personnel turbulence, lack of time to work with individuals during the ARTEPs, and difficulty in presenting a true picture of individual skills. It was felt that platoon sergeants and squad leaders could identify the best and worst men in the squad at each skill and the extent of cross-training without formal records. Such a record-keeping system, it was felt, would be difficult to set up and maintain. For one thing, the system itself would be subject to inspection, and might just degenerate into a box-filling exercise.

Upper level personnel did agree that a record of individuals possessing certain critical skills (FO, FDC, etc.) might be valuable for readiness of critical weapons systems, information for further

training, discrimination of critical personnel in a generalized MOS, personnel assignments, and school quotas. At the brigade level, a two-track system was brought up: (1) records to indicate group training needs based on individual skills testing, and (2) detailed skills records for individuals in critical positions. Brigade level personnel agreed that this system might work and be of value.

At the company level, there is presently an NCO assigned the duties of a training NCO unofficially, since there is a need for someone to fulfill these duties, including record keeping. Battalion personnel would also like to see a training NCO authorized for the position.

Division level was responsive to the possible use of a marksense system for computerization of record keeping.

Many lessons are too basic or elementary - aimed at BCT/AIT.

More lessons are needed on weapons tactics.

Equipment is not always reliable.

Video tape players are used primarily by officers. One TNCO used

At the lower levels, interviewees stated that a large number of PVTs md PPCs(50%, according to one company commander) are taking correspondence courses. These courses are seen as being very useful as they are

losely alifed with the manuals. There is a problem getting them, though; they are very slow in coming and there may be a gap of months between the arrival of one group of metarials and the next.

Training Publications

Higher level personnel like the "How-To-Fight" Training Circulars and consider them much better than the old FMs. They are more concise and much easier to read. At the battalion and company levels, interviewees observed that the TCs are used much more by the NCOs and officers than by the EMs. The officers and NCOs take the TCs into the field; the size is handy for field use.

# TOPIC 5: Training Technology

## TEC Program

The TEC program was discussed at all levels. The battalions report availability of TEC sets and sets of TEC tapes. Most personnel interviewed who had used the TEP program like it. However, the sets are infrequently used. At the brigade level, it was stated that TEC "has not received command attention" because there were more pressing problems in setting up a new brigade. A company which has used TEC liked it and plan to use it again. At the platoon and squad levels, several interviewees have never seen the TEC program, much less used it.

There are problems with the TEC program expressed by those who have used it:

- Many lessons are too basic or elementary aimed at BCT/AIT.
- Some of the lessons are merely taped lectures.
- More lessons are needed on weapons tactics.
- Lessons need to be more performance-oriented.
- Equipment is not always reliable.

### Other A-V Equipment

Video tape players are used primarily by officers. One TNCO used them and liked them very much.

### Correspondence Courses

At the lower levels, interviewees stated that a large number of PVTs and PFCs (60%, according to one company commander) are taking correspondence courses. These courses are seen as being very useful as they are closely allied with the manuals. There is a problem getting them, though; they are very slow in coming and there may be a gap of months between the arrival of one group of materials and the next.

### Training Publications

Higher level personnel like the "How-To-Fight" Training Circulars and consider them much better than the old FMs. They are more concise and much easier to read. At the battalion and company levels, interviewees observed that the TCs are used much more by the NCOs and officers than by the EMs. The officers and NCOs take the TCs into the field; the size is handy for field use.

At the battalion level, one officer criticized the new Training Circulars as being too narrow in scope. It is felt that junior NCOs might concentrate solely on TC material and neglect other equally important parts of the tactical operation.

The Soldier's Manuals do not yet play an important part in training. They are in very limited distribution and have not even been seen by personnel in the lower levels. At the brigade level, they are seen as being more potentially useful to the trainers for training management than to the EMs. They have been used to some extent in one battalion in preparing for the EIB test.

There was very little mention of FMs. There are enough to go around. They are used more by NCOs and officers than by EMs, and are used primarily as aids in preparing to teach classes.

## Training Aids

SCOPES is used at the squad and platoon levels, primarily squad, but most personnel feel it is cumbersome above squad levels. Lower level EM report that it is easy to foil the system by simply hiding the helmet number. EM criticized the SCOPES operators and aggressors for "not playing the game" in squad exercises using SCOPES.

The Sony Rover manpacked instant replay television camera was mentioned at the battalion level. Battalion interviewees feel it would be a valuable aid and could be used in large scale ARTEPs where it could provide feedback and motivation for soldiers to "play the game" at a higher level. However, although available, it is not currently being used extensively.

# TOPIC 6: Training Resources

### Audio-Visual Materials

Video tape players and video tapes are available at the Learning Center/MOS Library.

The Learning Center/MOS Library has study guides for MOS qualification tests, correspondence course application materials, study halls, video and audio tapes and players, and other audio-visual devices available. However, the center is larely an underused resource because men can not get away from the units to use it due to time constraints and the distance involved. It has been suggested that Learning Centers/MOS Libraries be established at the battalion or company levels.

Some comments were received that TASO needs to become more responsive to the needs of the unit. Difficulty, or "red tape", in obtaining training aids, and poor maintenance were commented upon. Other units reported no problem in obtaining training aids, but did mention maintenance services provided by TASO as a problem.

### Training Aids

The Sony Rover TV system is available, and the SCOPES equipment is available, although the latter is in short supply. Men have trouble getting SCOPES equipment because everyone seems to want it at the same time. Also, squad members expressed the desire for more SCOPES numbers, as a helmet number alone is so easy to hide, and they also said that some of the scopes are not clear; hard to see through.

## Training, Equipment, and Simulators

There are some simulators and kits available in the battalions, such as mine kits and demolition kits, but there is a general feeling at lower levels that there are simply not enough training aids and equipment to go around.

Some levels feel there is a need for more ammunition for certain types of weapons. More and better simulators are needed for some weapons systems.

At the lower levels, some soldiers in weapons squads indicated they would like more opportunities to fire their weapons.

## Training Areas

Training areas are not seen as a problem at the division level, but at other levels they are considered inadequate. Some say they are too small and there are too many restrictions upon their use. Several firing ranges are needed for special types of weapons and tactics; i.e., anti-tank and moving target ranges - defensive firing ranges.

### Personnel

At the battalion level, there was some discussion of the problem of personnel inexperience. Some of the company commanders have no platoon experience; many of the platoon leader LTs have no troop experience; many platoon sergeants had been drill sergeants and need time adjusting to the job. Squad leaders and fire team leaders' positions are often being filled by PVTs, PFCs, and SP4s. In general, most low level leaders need experience on the job.

### Time

There is a conflict between training time and details. Men are being pulled for details in both T and non-T weeks.

One battalion suggests training areas should be blocked out according to training needs. An unused area, if made available by another unit, usually cannot be used because it is too late to make plans for its use.

### Turbulence

Internal turbulence (appointments at the dentist, etc.) is a problem because it takes men away from training and interferes with the training schedules. Possibility of coordinating administrative appointments with training schedules is a field to be explored.

## MOS LIBRARY/LEARNING CENTER

### Materials On Hand

Publications

Study Guide for MOS Qualification Tests

Applications and Catalogue Listing Correspondence Courses

Study Hall for individuals and for small group

Video and Audio Tapes and Tape Players

Device which coordinates audio tapes and fild strips on limited military subjects

Device for controlled practice in improving reading speed

### Procedure Followed

Publication Section - Soldier indicates what publication he wants (by referring to Study Guide) and staff secures publication for him. Soldier can keep material for about one week.

Audio-Visual Section - Soldier indicates what subject he is interested in (e.g., reading grid coordinates) and staff gives him what material is available. He must use it at the Learning Center. Staff receives and/or prepares a synopsis of each video casette and refers to the synopsis file in selecting material for soldier. Some video tapes are loaned out to the unit. Units can borrow video tape players from TASO.

# TASO (TRAINING AIDS SUPPORT OFFICE)

#### Function

TASO supports training at Fort Ord, and Active, Reserve, and ROTC units in California and Nevada. TASO's basic functions are to:

- Maintain Hardware/Software
- Provide a Training Devices Catalogue
- Fabricate and Produce Non Catalogue Training Item Needs

#### Maintenance Services

TASO conducts a semi-annual organizational level maintenance of hardward (audio-visual devices). If the hardware requires removal, replacement, and/or repair or depot level maintenance function, it is sent by TASO to DIO (Defense Industrial Organization).

TASO has no capability to repair software components. The TEC software is shipped back to the Tobyhanna distribution point for repair. Turn around time from submission of software to receipt of repaired/new lesson software is about one month.

TASO has two copies of each TEC lesson. If the battalion has a damaged TEC lesson, the battalion can come to the TASO and sign out a copy of the lesson, while theirs is being repaired. However, if both TASO copies of a lesson are on loan, TASO cannot requisition extras from other units in the region. TASO has now approximately two copies of 100 different TEC lessons.

# Catalogue Services

If the local TASO has a catalogue item, it is issued to the requesting unit; if not, TASO surveys other TASOs who might have it. If other TASOs have it, it is issued to the local TASO who in turn issues it to the local unit. If other TASOs do not have it, a request can be made to the Department of the Army to procure it.

#### Fabrication and Production Services

For items not listed in the catalogues, TASO makes training aids for items that are deemed valid training aids requests. A check is made to determine if the items have been made previously and are on

hand. If the item is available, it is issued via a hand receipt on a temporary or permanent basis. If the item is not in stock, TASO determines if they have the resources to produce it. If they can fabricate it, the requester fills out DA Form 1357 and a training requirement priority is established by TASO. Higher priority requests "bump" lower requests and the backlog depends on the type of aid request and the priority it is assigned. Some with low priority may be backlogged six to seven months.

If TASO does not have the capability to produce it, other TASOs are queried to see if they have it. If not, a request can be submitted to TRADOC or CATB for their action to determine validity and award a contract to produce the items and quantities needed. This might take as long a 1-1/2 years.

# Audio-Visual Aids

TASO helps the trainer design the form, medium, format, layout, and art work necessary for audio visual aids. The following shows the types of aid and the typical wait.

Tobyhanna distrib biAm point for	Waiting Time
Overhead Transparencies	Walk in - Walk out
Briefing Charts, Slides, etc.	2 to 3 days
35 mm Slides	1 to 2 days

#### TV Aids

There is no backlog in TV type aid. Very few trainers use the TV capabilities.

#### APPENDIX B

#### IETS TASK SELECTION

#### METHODOLOGY AND RATIONALE

A flow chart of the overall selection process is presented in Figure 1. Each block in the chart has been numbered to reference the discussion of the chart that follows.

Block 1. Because of limited resources, it was the desire of the research team to focus on those individual tasks in the candidate MOSs that were difficult to learn or to teach to do correctly. It was felt that by identifying such tasks a higher probability of payoff could be realized since (1) the prototype IETS could provide help to the operational division in the form of Task Training Packages (TTPs) where training might be particularly troublesome, and (2) the operational division would be more receptive and willing to adopt the prototype IETS if it focused on troublesome training areas rather than on tasks they were already providing adequate training.

Position Ranks and Within Cell Level and Duty Ranks on IETS Overall Skill Proficiency Establish Measures Candidate Select Task For Each Task Mean Rating Establish 0veral1 Both Groups Sempling Plan From Cell Freq. Determine Compare Ratings Verify Task Selection With 7th Division œ Determine Training Difficulty Ratings From P/Sgts and Classify Tasks E2s and E3s Proficiency Measures on IETS FINISH ч START

Figure 1. Selection of 11B and 11C MOS Tasks for the Prototype IETS

To identify these difficult tasks, each task in the 11B and 11C was typed on a card. A 5 point rating scale was developed ranging from VERY HARD TO LEARN TO DO CORRECTLY to VERY EASY TO LEARN TO DO CORRECTLY. A sample of platoon leaders and platoon sergeants rated each task on this scale. Similarly a sample of E2s and E3s also rated each task in their MOS. A mean rating on each appropriate task was established for each group.

Block 2. Comparisons of the mean ratings for Skill Level 1 tasks for each MOS was then made between each group. Charts of those comparisons are shown in Appendix I. The results showed that there was a high degree of agreement between the Platoon/Sgts (trainers) and E2 and E3 (trainees) on which tasks were more difficult. The correlation of the mean ratings between these two groups for the 11B MOS tasks was .81 and .79 for the 11C MOS tasks. The mean difficulty ratings given to the task by both groups was surprisingly low--very few tasks were rated FAIRLY HARD TO LEARN TO DO CORRECTLY. Most clustered around the AVERAGE difficulty or FAIRLY EASY TO LEARN TO DO CORRECTLY points. The overall mean difficulty ratings for Skill Level 1 tasks follows:

MOS	P/Sgts	E2-E3	P
11B	2.68	2.34	p < .01
11C	2.85	1.99	p <.001

A value of 3.0 indicated an AVERAGE difficulty rating for the task and a value of 2.0 indicated a FAIRLY EASY TO LEARN TO DO CORRECTLY

rating. In both MOSs the P/Sgts rated the tasks significantly more difficult than did the E2s and E3s.

Block 3. In this step an overall mean rating value was established for each task in each MOS by combining P/Sgts and E2s and E3s mean ratings on those tasks where both groups had rated them.

In the case of some duty positions specific tasks and Skill Level

2 tasks only the P/Sgts ratings were available as the overall mean value as the E2s and E3s had not had any experience with those tasks.

Block 4. A classification system was developed for use in the task sampling process and to summarize evaluation data in a form that would enable commanders to have up to date knowledge of his unit's proficiency. The categories employed for Skill Levels 1 and 2 are:

- 1. Technical Equipment Proficiency (TE) defined as operating or maintaining equipment following standard procedures or instructions.
- 2. Technical Weapons Proficiency (TW) defined as operating or maintaining weapons following standard procedures or instructions.
- 3. Tactical Proficiency (TA) defined as making decisions on when, where, and how to use weapons or taking actions to make weapons more effective.
- 4. Support Proficiency (SU) defined as tactical tasks that do not involve a weapon (e.g., camouflage, concealment, surveillance, and information gathering).
- 5. Survival Proficiency (SR) defined as life supporting actions taken by the individual soldier to preserve life of the injured or to prevent injury.

In addition, at Skill Level 2, two other categories were used.

- 6. Leadership General Proficiency (LG) defined as commanding and/or controlling of a subordinate's performance or actions.
- 7. Leadership Tactical Proficiency (LT) defined as tactical leadership skills in deploying men and weapons to make them most effective.

Using this classification scheme, the common tasks for 11B and 11C for Skill Level 1 and 2 were sorted into these categories. In addition, the duty position of Scout and Radio-Telephone Operator of the 11B MOS and the 81mm Mortar Gunner of the 11C MOS were also categorized. It was felt these duty positions would offer greater payoff to the Army in terms of developing JTPs.

Block 5. Each task was classified by four representatives

from the IETS research team sub components activities. Agreement
by all four was reached as to its classification. Result of that
classification is shown below:

11B MOS CELL FREQUENCIES

	TE	TW	TA	SU	SR	LG	LT
Skill Level 1 Common Tasks	0	21	20	13	i the h		
Duty Position Scout	9	3	inler 1	dact t 1 The z	0	quired S prot	
Duty Position RTO	10	0	0	0	0		
Skill Level 2 Common Tasks	9 *	4	0	3	1	5 *	9

<sup>\*</sup>Indicates a cell from which to sample

11C MOS CELL FREQUENCIES

	ŢE	ŢW	TA	SU	SR	LG	LT
Skill Level 1 Common Tasks	11 *	20 *	14 *	10 *	11 *		
Duty Position Gunner	0	10 *	1	0	0		
Skill Level <sup>2</sup> Sq. Leader	0	3	1	0	0	0	1
Skill Level 2 Common Tasks	0	7 *	1	4	1	5 *	2

<sup>\*</sup>Indicates a cell from which to sample.

Block 6. The next step in the procedure was to take the mean rating of each task established in Block 3 and determine the overall rank of each task for each skill level and duty position shown in the matrix of Block 5 for each MOS. After the overall rank was determined for the task, the within cell rank was determined. The results of these rankings are snown in Appendix 2.

Block 7. Next the committee representatives met to select the tasks. Tasks were chosen on the basis of (1) rank of training difficulty, (2) apparent appropriateness to the development of JTPs, (3) training resources required to conduct training, and (4) the probability of payoff for the IETS prototype. The results of the selection process are shown below.

IETS 11B MOS TASKS

	<u> 115 135, 215</u>	100	11B MOS
	Task Description	Mean Difficulty Rating	Soldier's Manual T&E Number
1.	Emplace and recover M16A1 AP and M21 AT mines.	3.95	II-C-15
2.	Organize a tank hunter-killer team.	3.50	III-C-9
3.	Determine the grid coordinates of a point on a military map using the military grid reference system.	3.40	II-B-33
4.	Process known or suspected enemy personnel.*	3.30	II-B-14
5.	Determine a location on the ground. (Examine surrounding terrain and indicate his location on a map.)	3.30	II-B-34
6.	Recognize vulnerability of enemy armor to individual (M16Al rifle, M203 grenade launcher) and crew served (M60 machinegun) weapons. Show what parts of enemy armor are vulnerable to rifle, grenade launcher or machinegun fire.	3.235	II-C-20
7.	Conduct a performance oriented training class. (Conduct a "hands on" training class.)*	3.15	II-D-1
8.	Apply artificial respiration to a chemical-agent casualty.*	2.90	II-A-7

<sup>\*</sup>Identical tasks for 11B and 11C MOSs.

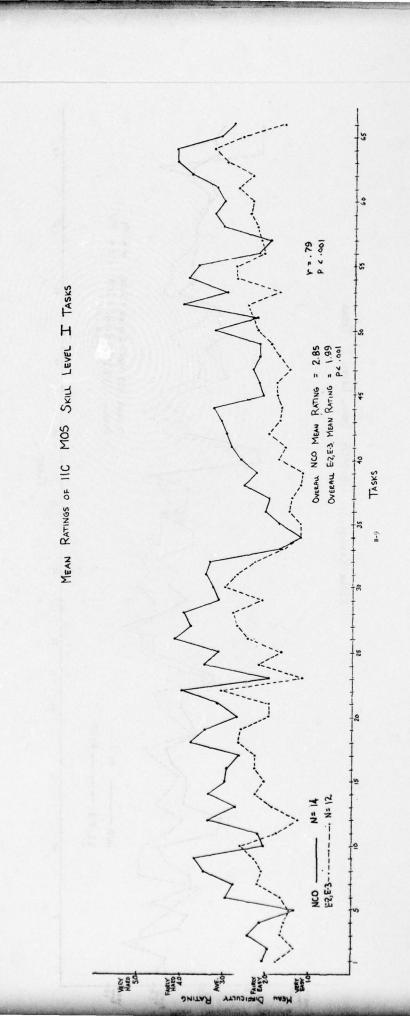
IETS 11C MOS TASKS

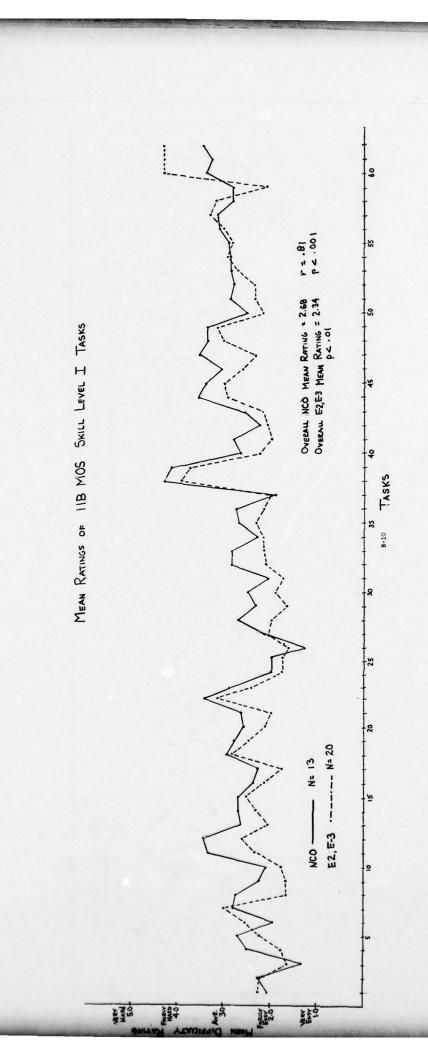
	Task Description	Mean Difficulty Rating	11C MOS Soldier's Manual Task Numbers
1.	Authenticate transmission and encrypt/decrypt grid coordinates	- bes <b>%</b> LASIN pevo	osa Ma erelçağı ül Januar VA IVK
	using the Kal 61.	3.57	071-C-1-0941
2.	Estimate range.	3.54	071-C-1-0512
3.	Call for/adjust indirect fire		
	using the creeping method of adjustment.	3.35	071-C-1-0551
4.	Call for/adjust indirect fire		
	using the bracketing method of adjustment.	3.20	071-C-1-0550
5.	Boresight 81mm mortar.	3.20	071-C-1-3902
6.	Conduct a performance training session.*	2.79	+II-D-1
7.	Apply artificial respiration to a chemical-agent casualty.	2.76	071-C-1-0151
8.	Process known or suspected enemy person.*	2.75	071-C-1-0802
9.	Convert a magnetic azimuth to a grid azimuth. (Or grid azimuth to a magnetic azimuth.)	2.50	+II-B-31

<sup>\*</sup>Identical task for 11B and 11C MOS. +In the 11B Skill 2 Manual - T&E Numbers

These seventeen tasks represent 11 potential JTPs. Thus one JTP would be developed for each task described above with the exception that task statements 3 and 4 in the 11C MOS would be one JTP, and that task statements 3 and 5 in 11B and 9 in 11C would make up one JTP. Where identical tasks occur only one JTP would be developed.

Block 8. The remaining task is to verify the above tasks with the operational infantry division.





#### APPENDIX C

# INDEX OF TASK TRAINING PACKAGES (TTPs)

# Surveillance and Intelligence

- 1. Estimate range
- 2. Process known or suspected enemy personnel

#### AT and AP Mines

- 1. Emplace and recover MI6 AP mines
- 2. Emplace and recover M21 AT mines

### Resuscitation of Chemical Agent Casualty

- 1. Putting on gas mask
- 2. Treating a chemical agent casualty

# Recognize Vulnerability of Armor

1. Recognize vulnerability of armor to M16A1, M2O3, LAW-

# because of lack of information on doctrine.

not completed

# Encrypt/Decrypt Grid Coordinates

- 1. Encrypt and decrypt grid coordinates using the KAL 61
- 2. Authenticate transmissions

#### Land Navigation

- 1. Determine a magnetic azimuth between two known points
- 2. Determine grid coordinates of a point on a military map using the military grid reference system
- 3. Determine a grid azimuth between two given points on a map
- 4. Orient a map using a lensatic compass
- 5. Convert a magnetic azimuth to a grid azimuth or a grid azimuth to a magnetic azimuth
- 6. Convert an azimuth to a back azimuth and plot the back azimuth using a protractor
- 7. Determine the elevation of a point on the ground using a map
- 8. Relate topographic symbols and contour lines on a map to terrain features on the ground

- 9. Determine a location on the ground
- 10. Measure ground distance on a map
- 11. Determine distance while moving on foot from one point to another
- 12. Navigate from one position on the ground to another point daylight
- 13. Navigate from one position on the ground to another point night

# Conduct Performance Training

1. Conduct a performance-oriented training class

# Organize Tank Hunter-Killer Team

- 1. Organize a HTR-KLR Team
- 2. Employ tank HTR-KLR Team

#### Forward Observer Procedures

- 1. Determine azimuth using an M-2 compass
- 2. Orient a map using an M-2 compass
- 3. Estimate lateral distance
- 4. Locate target via grid coordinate method and make initial call for fire
- Locate target via shift from known point method and make initial call for fire
- Locate traget via polar plot method and make initial call for fire
- 7. Adjust fire using the bracketing method
- Call for/adjust indirect fire using the bracketing method of adjustment
- Danger close: Locate target via grid coordinate method and initial call for fire
- 10. Danger close: Locate target via shift from known point method and make initial call for fire
- 11. Danger close: Adjust fire using the creeping method
- Danger close: Call for/adjust indirect fire using the creeping method of adjustment

### Boresight Mortar

Boresight the 81mm mortar

APPENDIX D. TRAINING MANAGEMENT FUNCTIONS & TASKS

TRAINING MANAGEMENT FUNCTIONS - ARTEPS

g
ining
Trai
tive
lect.
S S

	BOPOR						
	Keep grades on file	SBC					
ORO	Review grades		0	S			
REPORT & RECORD	absang ngissA	1	ગ	0	S		
RT &	Keep report on file	PC 88	Pc SB	Pc SB	20		
REPO	Direct corrective action			8 0	25		
	Review report of performance	00	a	S			
	Prepare report of performance	8	J	۵	S		
	Supervise/Inspect	25	as	S			
	Conduct evaluation	B	U	4	S		
	Assemble equipment	80	J	<u>a</u>	S		
ION	Provide guidance to evaluator(s)	8	บ	٥	S		
CONDUCT EVALUATION	Designate evaluator(s)	8	ว	a	S		
EVA	Approve scenarios	В	ว	a	S		
DUCT	Prepare scenario	B	2	٥	S		
S	Schedule evaluations	B	2	۵	S		
	Rears etsocifa	PCS	00	S			
	Request areas		Pc	an	\$		
	Select ARTEP evaluation level	PCS					
	Supervise/Inspect	PC SB	PC SB	PC	as	S	
	Conduct training		8	υ	0	S	
	Assemble equipment		80	2	a	S	
ING	Provide guidance to instructor(s)		80	J	a 5		
RAINING	Designate instructor(s)		00	J	00		
JCT .	ofnance scenario		80	2	00		
CONDUCT	Prepare scenario		NAME OF STREET	8	SS		
	Sekerolises		00		20		
	Range areas	28	50		S	S	
	Request areas		PC SB	50	an		
	Select ARTEP training level	SPS					
	8 8 8 5	DIV.	BDE.	BN.	.00	PLATOON	SQUAD

ARTEP CODE: S - Squad P - Platoon C - Company 3 - Battalion

Tasks now being performed
 Additional tasks required for IETS

TRAINING MANAGEMENT FUNCTIONS & TASK IN IETS Individual Training (Prototype)

S	Keep records on file				X		
RECORDS 1 DUAL ENCY	Direct corrective action	×	×	×	×		
FILE	Analyze proficiency results	×	×	×	×		
INTAIN RECOR OF INDIVIDUAL PROFICIENCY	Submit proficiency results for analysis				×		
MAINTAIN OF IND PROFI	Review records prior to official recording					×	
	Record results						×
	Direct corrective action				×	×	
NING	performance tests						-
TRAI	ni sətanibyodus əsiyyəqu2 administering indinasi					×	
EVALUATE TRAINING	Spot check evaluations				×	×	
EVALI	Record Go/No Go performance on each task						×
	Administer performance tests						×
	Supervise conduct of instruction				$\otimes$	$\otimes$	
SI	Conduct instruction					8	8
CONDUCT TRAINING	Conduct tng rehearsal					X	
2	Obtain facilities					8	
5	Assemble equipment						8
Š	Approve lesson plan				8		
8	Prepare lesson plan					8	
	Obtain needed tng materials					8	8
	Instruct subordinates in how to conduct individual tng & testing				8	8	
	Designate OIC, NCOIC, or instructor(s)				$\otimes$		
EDULE TRAINING	Select dates for tng				$\otimes$		
AIN	Allocate needed tng materials			8	8	×	
1 2	Request needed tng materials				888	8	×
ULE	Allocate equipment	8		8	8		
9	Request equipment			8	8	8	
SG	Allocate tng areas	8	8	8			
	Request tng areas		8	8	8		
	Allocate ranges	8	8	8			
	Request ranges		8	8	8		
	Select priority of individual tasks to be trained				×		
					-		
DETERMINE INDIVIDUAL PROFICIENCY	Administer individual performance tests as needed						×
DETERMINE NDIVIDUAL ROFICIENC	Screen individual tng records				8	×	×
PS S	Observe individual proficiency of each man in unit					×	×
		DIV.	BDE.	BN.	.03	PLATOON	SQUAD

#### APPENDIX E

# MANAGING INDIVIDUAL TRAINING FOREWORD

Personnel assigned as training managers in TO&E units seldom have opportunity to <u>practice</u> the performance of training management skills prior to assignment. Immediately upon assignment, they are expected to identify deficiencies, develop needed training programs, and maintain a high level of performance capability in the men in their unit.

This program of instruction is designed to provide you with the opportunity to practice the knowledge and skills you will need prior to the time you must employ performance-oriented practices in training and evaluating the men in your unit. A companion program entitled "Conducting Individual Training" prescribes how to conduct performance-oriented training.

Once you have completed these programs, it is expected that you will be able to train other persons to perform the job of training manager, as well as the job of trainer.

These programs are easy to implement and will make only minimal demands upon your time. Meetings with those you are training, e.g., platoon sergeants and squad leaders, will be minimal and will depend largely on the wishes and needs of the participants.

# INTRODUCTION

# Purpose

If you are the person who plans training and supervises trainers, this booklet is for you. It is designed to help you do a better job as a training manager.

#### Format

This is a self-study program in the sense that it will (1) give you information or tell you where to get information; (2) give you questions to answer or practical exercises to complete; and then, (3) tell you where you can find the "book solution" to the questions and practical exercises. Your job is to read the information, answer the questions or do the practical exercises, and then compare what you have done with the "book solutions."

#### REFERENCE MATERIALS

You will need the following items as you go through the program:

Training Circular 21-5-1, Training Management Digest: Training Management: An Overview, April 1973

FM 21-6 (Test Edition) How to Prepare And Conduct Military Training, June 1974

TRADOC Pamphlet 600-11, Guidelines for the Conduct of Performance Oriented Training

ARTEP 7-15 (Test Edition) For Light Infantry Battalions

The companion program "Conducting Individual Training"

FM 21-75, Combat Training of the Individual Soldier and Patrolling  $\ \ \,$ 

FM 7-20, Infantry, Airborne Infantry, and Mechanized Infantry Battalions

FM 7-10, The Rifle Company, Platoons, and Squads

# Organization of Program

This training program consists of a Book Solutions section and the following lessons:

- 1. Introduction to Performance Oriented Training
- Discussion of Task Categories, Functional Groups, and Task Training Packages
- 3. Training Personnel to Judge the Individual Proficiency of New Men and to Employ Screening Procedures
- 4. Training Personnel to Prepare, Conduct, and Evaluate Performance Oriented Training
- 5. (This lesson deleted)
- 6. Preparing a Training Schedule
- 7. Keeping a Record of Performance Test Results
- 8. (This lesson deleted)
- 9. Quality Control
- 10. Motivation and Reinforcement

In studying these lessons, it will be necessary to refer on occasion to the lessons in "Conducting Individual Training," the program designed to help you train your trainers.

Lesson 1. Introduction to Performance Oriented Training

Objective: You will be able to describe the main characteristics

of performance oriented training.

References: TC 21-5-1

FM 21-6, Chapters 1 and 2

ARTEP 7-15, pages C-1 through C-12

TRADOC Pam 600-11, pages 3-4, 23-27, 32-35, and 36-40

#### Some Information:

As a training manager, your major responsibilities are to develop an effective training program; assemble the resources, trainers and facilities to carry it out; and what is probably most important, insure that the individual soldier is properly instructed in the skills of his job. To discharge this responsibility it is important for you to be skilled in performance training.

This course will cover briefly what you must do as a training manager. It will cover the principles of performance oriented training and explain the phases of effective instruction. It will show you how to train personnel to prepare, conduct, and evaluate performance oriented training.

### Things for you to do:

- 1. Read the references listed above.
- 2. In your own words, describe the six principles of performance oriented training. When you are finished, compare your answer with the answer found in Book Solutions, page 1.
- 3. In your own words, describe the three steps which should be followed during the <u>Conduct</u> phase of performance oriented training. When you are finished, compare your answer with the answer found in <u>Book Solutions</u>, page 2.

Lesson 2: Discussion of Task Categories, Functional Groups, and Task Training Packages

Objective: You will be able to state why tasks must be grouped for training and recording purposes.

Reference: Conducting Individual Training

Some Information:

The Soldier's Manual for MOS 11B1, Infantryman, Skill Level One, Grades #E3 and E4, lists the tasks that are to be performed by the soldier before he starts learning the tasks required for Skill Level Two. Some tasks are basic or common to all 11B soldiers, and some are performed only by men in special duty positions.

The basic tasks for Skill Level One total 63. If a squad leader were required to train and keep individual proficiency records on each of these tasks on each soldier in his squad, the work would be overwhelming. To simplify training and recording of each soldier's proficiency, the tasks have been grouped, first into four categories, and then into functional groups.

HANDOUT "Task Categories and Functional Groups for Duty Position, Basic Infantryman, MOS 11B1"

1. Weapons or Equipment - Technical

This category includes the <u>mechanical operation</u> tasks of a weapon or piece of equipment.

<sup>&</sup>lt;sup>1</sup>In this lesson and in some later ones, useful information is sometimes provided in the form of HANDOUTS. These handouts are primarily for use by the training manager in instructing trainers.

# Task Categories and Functional Groups for Duty Position

# Basic Infantryman MOS 11B1

Task Category	Functional Group				
I. Weapons and Equipment - Technical	1. M16Al Rifle 2. M2O3				
	3. Starlight Scope				
	4. LAW				
	5. 90 mm RCLR				
	6. DRAFON				
	0. DRAFON				
II. Weapons and Equipment - Tactical	7. M16Al Rifle				
	8. M203				
	9. Hand Grenades				
	10. Claymore.				
	11. Mines				
	12. Enemy Armor				
	13. Starlight Scope				
	14. LAW				
	15. 90 mm RCLR				
	16. DRAGON				
	17. M60 MG				
III. Basic Combat Techniques	18. Battlefield Positions and Camouflage				
	19. Battlefield Movement				
	20. Surveillance and Intelligence				
IV. Battlefield Survival	21. First Aid				
IV. Battletleta balvival	22. Protective Mask				
	23. Protection against CBR				
	24. First Aid CBR Casualty				
	25. Individual Fitness				

# II. Weapons or Equipment - Tactical

Included in this category are the <u>tactical employment</u> tasks of a weapon or piece of equipment.

#### III. Basic Combat Techniques

In this category are the additional tasks that all soldiers must be able to perform on the battlefield in tactical operations.

# IV. Battlefield Survival

Life saving tasks such as First Aid and Protection Against Chemical Warfare are in this category.

Each category contains sets of tasks that have been combined to form functional groups. There are 25 functional groups listed for the Basic Infantryman, and each group contains from 1 to 6 tasks. The tasks in each functional group are supported by a Task Training Package (TTP). Each TTP contains training and evaluation materials.

HANDOUT "Contents of Task Training Packages for MOS 11B"

This HANDOUT lists the tasks which are in each functional group's TTP.

Each TTP contains the training and testing materials needed to learn that set of related tasks.

For example, if the men in the squad are to be given technical training in the M16Al Rifle, the trainer uses TTP #1 for the "M16Al Rifle - Technical." This package covers the four tasks listed in the Handout.

When each soldier becomes proficient in all four tasks, he can be scored as Qualified in this group of tasks.

# HANDOUT

# TASK CATEGORY: WEAPONS AND EQUIPMENT - TECHNICAL

1. Mi6Al Rifle Maintain an Mi6Al rifle, magazines, and ammunition

Load, unload an Mi6Al magazine Load, reduce a stoppage, unload, and clear an Mi6Al rifle Zero an M16Al rifle

Load, unload, and clear M203 grenade M203 Grenade Launcher Maintain an M203 grenade launcher Zero an M203 grenade launcher and ammunition launcher

Maintain starlight scope Mount/dismount on M16Al rifle Starlight Scope AN/PVS-2 zero on M16Al rifle Prepare M72A2 LAW for firing/restore to carrying configuration

Load, reduce stoppage, unload, and 90 mm RCLR Maintain 90 mm RCLR and ammo clear 90 mm RCLR

Boresight the 90 mm RCLR

Perform pre-op checks

Maintain DRAGON

TASK CATEGORY: WEAPONS AND EQUIPMENT - TACTICAL Prepare and use aiming stakes for MI6Al 7. Mi6Al Rifle Engage targets with a Mi6Al rifle

launcher and apply immediate action Engage targets with an M203 grenade Prepare and use aiming stakes to reduce a stoppage M203 Grenade Launcher

CONTENT OF TASK TRAINING PACKAGES FOR MOS 11B1

Engage enemy with hand greandes Maintain hand grenades 9. Hand Grenades

Claymore Install/recover a Claymore Fire a Claymore ë

Emplace and recover M16Al AP and M21 AT Detect and mark enemy mines and booby mines traps i.

Enemy Armor Recognize vulnerability enemy armor to M12A1, M203 and M60 12.

Engage target with rifle using AN/PVS-2 Starlight Scope Conduct surveillance using An/PVS-2 13.

Apply immediate action on LAW to Engage a target with a LAW correct a malfunction 14.

Prepare range cards, MAW Camouflage MAW psn Prepare MAW psn Engage targets 90 mm RCLR 15.

DRAGON

16.

M60 Machine Gun Load, reduce stoppage, unload and clear Engage targets w DRAGON Engage targets 17.

TASK CATEGORY: BASIC COMBAT TECHNIQUES

Camouflage/conceal defensive position 18. Battleffeld Positions and Camouflage Construct individual defensive Select temporary battleffeld Camouflage/conceal equipment Camouflage/conceal self position

Move under direct fire; rush/crawl Move as a member of a fire team React to indirect fire React to flares Clear fields of fire Battlefield Movement Negotiate obstacles 19.

Surveillance and Intelligence Conduct day and night surveillance Collect/report information; SALUTE Process known or suspected enemy Use challenge and password Estimate range' personnel 20.

TASK CATEGORY: BATTLEFIELD SURVITAL

21. First Aid Apply the four life saving measures Apply first aid for burns Protective Mask Maintain mask Put on mesk 22.

Decontaminate self

Protection against CBR

23.

Apply artificial respiration First Aid CBR Casualty Administer atropine 24.

Maintain individual physical fitness Physical Fitness 25.

Similarly, if the same soldier can perform the tasks and is checked out in TTP #7 "M16Al Rifle - Tactical" he can be listed as Qualified for the two tasks in that group.

Look at the groups under the task Category: Basic Combat Techniques.

Group #18 "Battlefield Positions and Camouflage" includes tasks pertaining to selection and preparation of defensive positions. Group #19 "Battlefield Movement" contains the tasks that cover an individual's movement on the battlefield. Group #20 "Surveillance and Intelligence" includes the basic tasks of gathering information about the enemy and basic security. TTPs #18, 19, and 20 provide the corresponding training and testing materials for these task categories.

Next, look at the groups under the Task Category: Battlefield

Survival. These groups and the tasks that make them up are familiar

to you as being tasks that are basic for every soldier in any duty assignment.

The next two handouts show how the tasks are similarly grouped for the Indirect Fire Infantryman, MOS 11C1. You will note that while some tasks are unique to 11C, many are required of both 11C and 11B.

HANDOUT "Task Categories and Functional Groups for Duty Position Indirect Fire Infantryman MOS 11C1"

HANDOUT "Content of Task Training Packages for MOS 11C"

The next handout is an example of a TTP for you to study.

HANDOUT Task Training Package (Lessons from Land Navigation)

Each TTP (whether for MOS 11B or 11C) consists of one or more lessons.

Each lesson, in turn, contains the following:

# Task Categories and Functional Groups for Duty Position Indirect Fire Infantryman MOS 11C1

Tas	k Category	Functional Group	
I.	Weapons and Equipment - Technical	<ol> <li>M16Al Rifle</li> <li>M203</li> <li>LAW</li> <li>.45 Cal Pistol</li> <li>Computing-Mortars</li> <li>FM Tactical Radios</li> <li>Field Telephones</li> </ol>	
II.	Weapons and Equipment - Tactical	8. M16A1 Rifle 9. M203 10. LAW 11. Hand Grenades 12. Claymore 13. Mines 14. FO procedure-Mortars 15. Radio Messages	
III.	Basic Combat Techniques	16. Battlefield Psns & Camfly 17. Battlefield Movement 18. Surveillance & Intelligent 19. Land Navigation	
IV.	Battlefield Survival	<ul> <li>20. First Aid</li> <li>21. Protective Mask</li> <li>22. Protection against CBR</li> <li>23. First Aid CBR Casualty</li> <li>24. Individual Fitness</li> </ul>	

TASK CATEGORY: WEAPONS & EQUIPMENT - TECHNICAL 1. MIGAL Rifle Maintain MiGAL rifle, magazines, and ammo

HANDOUT

Maintain Mi6Al rifle, magazines, and ammo Zero an Mi6Al rifle Load and unload an Mi6Al magazine Load, reduce a stoppage, unload and clear an Mi6Al rifle

M203 Grenade Launcher Maintain M203 grenade launcher and ammo Zero an M203 grenade launcher Load, unload, and clear an M203

3. Light Anti Tank Weapon (LAW)
Prepare for firing: restore LAW to
carrying psn

4. Caliber .45 Pistol
Maintain .45 pistol and ammo
Load, reduce a stoppage, unload and clear
Engage targets with a pistol

5. Computing - Mortars
Prepare M16 plotting board for operation
and determine initial firing data
(plvot point)
Process subsequent FO corrections

Maintain tactical FM radios AN/PRC 77;
AN/VRC-64 and AN/GRC-160
Maintain tactical FM radios AN/VRC-45
and AN/VRC-47
Prepare/operate tactical FM radios
AN/VRC-64 and AN/VRC-160
Prepare/operate tactical FM radios

Prepare/operate tactical FM radios AN/VRC-46 and AN/VRC-47 7. Field Telephones

7. Field Telephones
Maintain IA-312 and IA-1 telephones
Install/operate field telephones
TASK CATEGORY: WEAPONS & EQUIPMENT - TACTICAL

8. Mi6Al Rifle Engage targets with Mi6Al rifle

CONTENTS OF TASK TRAINING PACKAGES FOR MOS 11C1

9. M203 Grenade Launcher Engage targets with an M203 and apply immediate action to reduce a stoppage

10. Light Antitank Weapon (LAW)
Engage targets with a LAW
Apply immediate action for a malfunction

11. Hand Grenades Engage targets with hand grenades Maintain hand grenades

12. Claymore

Install/recover a claymore Fire a claymore

13.

Detect enemy mines

14. Forward Observer Procedure - Mortars
Call for/adjust fire - bracketing method
Call for/adjust fire - creeping method

Establish and enter or leave a radio net
Transmit and receive radio messages
Use CEOI extract to determine call signs,
frequencies and item number identifiers
Authenticate transmission and encrypt/
decrypt numbers and grid zone letters
using the KAL 61 with KTC 1400 numerical
code

code
Encode/decode messages using the tactical
operation code, KTC 600

TASK CATEGORY: BASIC COMBAT TECHNIQUES

16. Battlefield Positions and Camouflage
Camouflage/conceal self
Camouflage/conceal equipment
Select temporary battlefield position
Construct individual defensive position
Camouflage/conceal defensive position
Clear fields of fire

17. Battlefield Movement
Move as a member of a mortar squad (81 mm)
Negotlate obstacles
Move under direct fire; rush/crawl
React to indirect fire
react to flares

S. Surveillance and Intelligence
Conduct day and night surveillance
Estimate range
Collect/report information; SALUTE
Use challenge and password
Process known or suspected enemy
personnel

19. Land Navigation
Determine azimuth using an M2 compass
Determine the grid coordinates of a point on a military map
Determine the elevation of a point on the ground
Identify terrain features on the map

20. First Aid Apply the four life saving measures Apply first aid for burns

TASK CATEGORY: BATTLEFIELD SURVIVAL

21. Protective Mask Maintain mask Put on mask 22. Protection against CBR
Identify NBC bazards and take appropriate actions
Use cover
Decontaminate self and equipment
Determine personnel needs and personnel

23. First Aid CBR Casualty
Administer antidote to a nerve agent
casualty
Apply artificial respiration

hygiene

24. Individual Fitness
Maintain individual physical fitness

- 1. Title of lesson
- 2. Number of lesson
- 3. Task requirement
- 4. Conditions for task performance, including the situation and equipment and materials
- 5. Standards based on Soldier's Manual
- 6. Prerequisite knowledge and skills
- 7. Actions taken to perform task
- 8. Training resources
- Guide for instructors, including how to develop and conduct a lesson checkout.

# Things for you to do:

- 1. Study the task groupings to learn how the tasks are organized.
- 2. Study the sample TTP to learn how a TTP is constructed.
- 3. Be prepared to explain task groupings and TTPs to your trainers.

Lesson 3: Training Personnel to Judge the Individual Proficiency of New Men and to Employ Screening Procedures

Terminal You will be able to train personnel how to observe new men Objective: as they join the unit to judge their individual proficiency; how to use screening procedures will also be included.

Enabling 2 1. State the basic need for individual proficiency data. Objectives:

2. State the purpose of screening procedures.

Reference: Conducting Individual Training

#### Some Information:

As new men join the unit, it is necessary that the job proficiency of each man be assessed. Only then can appropriate individual training be scheduled. Squad leaders will do most of this assessing, but it is your responsibility to see that they are able to make the needed assessments.

When new men come to the unit, no one knows for certain what they can do. Records that come with them may indicate what schools they have attended and what duty positions they have had in the past, but this information doesn't talk in terms of job proficiency. You can ask the man what he can do, but this too leaves much room for doubt. In the future, a man may bring with him when he joins a unit a complete record of his performance capabilities on individual tasks. In the meantime,

<sup>&</sup>lt;sup>1</sup>Terminal objective: The action that the student should be able to perform after completing the lesson.

<sup>&</sup>lt;sup>2</sup>Enabling objective: The knowledge that the student must acquire in the lesson and which he must use in order to reach the terminal objective. The conditions and standards of performance for these objectives are included in the descriptions of the student and instructor activities.

assessments will have to be made at the unit soon after the man arrives.

There are two kinds of assessments of interest here: (a) observation of a man as he performs the duties of his MOS, and (b) informal screening procedures. You are already familiar with the first procedure. It is something good leaders have always done when new men joined the unit. The only difference is that now we want systematic information about performance. We want to make sure that we have proficiency information about each task that each new man must perform.

Ideally, each Task Training Package (TTP) should contain its own screening components. At this time, however, screening, training, and evaluation components are available for only some tasks of some TTPs. 

These tasks were judged by officers and NCOs to be particularly difficult to learn, and special efforts were devoted to developing training packages for them. A list of these tasks is shown in the next handout.

HANDOUT Tasks for which Screening, Training, and Evaluation Components are Available

For these tasks, informal screening procedures will be used. A first step will be to ask a man if he has had previous training on a given task. If he has had no training, he will be scheduled to complete the appropriate task. If he has had previous training, and is confident that he can perform well, the squad leader may ask him to take immediately the last checkout of a lesson set. If the man passes this checkout, he may then be asked to help other students learn the task, or he may be directed to consider evaluating himself on another task. However, if he fails, he begins training on the task.

The tasks and TTPs for which screening and other components are available are the ones that were selected for use in the Field Test to be conducted in the 7th Division, Oct-Dec 1976.

# Tasks for which Screening, Training & Evaluation Components are Available

# Surveillance and Intelligence

- 1. Estimate range
- 2. Process known or suspected enemy personnel

#### AT and AP Mines

- 1. Emplace and recover M16 AP mines
- 2. Emplace and recover M21 AT mines

# Resuscitation Chemical Agent Casualty

- 1. Putting on gas mask
- 2. Treating a Chemical Agent Casualty

# Recognize Vulnerability Armor

Recognize vulnerability of armor to M16A1, M2O3, LAW

# Encrypt/Decrypt grid coordinates

- 1. Encrypt and Decrypt grid coordinates using the KAL 61
- 2. Authenticate transmissions

### Land Navigation

- 1. Determine a magnetic azimuth between two known points
- 2. Determine grid coordinates of a point on a military map using the military grid reference system
- 3. Determine a grid azimuth between two given points on a map
- 4. Orient a map using a lensatic compass
- Convert a magnetic azimuth to a grid azimuth or a grid azimuth to a magnetic azimuth
- 6. Convert an azimuth to a back azimuth and plot the back azimuth using a protractor
- 7. Determine the elevation of a point on the ground using a map
- 8. Relate topographic symbols and contour lines on a map to terrain features on the ground
- 9. Determine a location on the ground
- 10. Measure ground distance on a map
- 11. Determine distance while moving on foot from one point to another
- 12. Navigate from one position on the ground to another point--daylight
- 13. Navigate from one position on the ground to another point--night

#### Conduct Performance Training

1. Conduct a performance-oriented training class

# Organize Tank Hunter-Killer Team

- 1. Organize a HTR-KLR Team
- 2. Employ tank HTR-KLR Team

#### Forward Observer Procedures

- 1. Determine azimuth using an M-2 compass
- 2. Orient a map using an M-2 compass
- 3. Estimate lateral distance
- 4. Locate target via grid coordinate method and make initial call for fire
- 5. Locate target via shift from known point method and make initial call for fire
- 6. Locate target via polar plot method and make initial call for fire
- 7. Adjust fire using the bracketing method
- 8. Call for/adjust indirect fire using the bracketing method of adjustment
- 9. Danger close: Locate target via grid coordinate method and make initial call for fire
- Danger close: Locate target via shift from known point method and make initial call for fire
- 11. Danger close: Adjust fire using the creeping method
- 12. Danger close: Call for/adjust indirect fire using the creeping method of adjustment

#### Boresight Mortar

1. Boresight the 81mm mortar

If the man has had previous training but is not confident about how well he can perform now, the squad leader should direct him to study lessons before he takes a lesson checkout.

It is important that checkouts on tasks are made and that the results are recorded in the squad leader's notebook. This information will be used by the company and higher headquarters to estimate the status of individual proficiency. Specifically, it will tell who needs training and what training he needs.

Things for you to do:

1. Study the informal screening procedures described above and practice them yourself before you train your subordinates how to use them.

Lesson 4: Training Personnel to Prepare, Conduct and Evaluate Performance Oriented Training

Terminal You will be able to train personnel how to conduct per-Objective: formance oriented training, to include procedures for administering performance tests.

Enabling Objectives:

- 1. State the principles of performance oriented training.
- 2. State the phases of performance oriented training.
- 3. Use a TTP along with its Performance Test as a guide when conducting performance oriented training.
- 4. Use a Checklist as a guide when evaluating a person who is conducting performance oriented training.

References: TRADOC Pam 600-11, pages 16-27 Conducting Individual Training

Some Information:

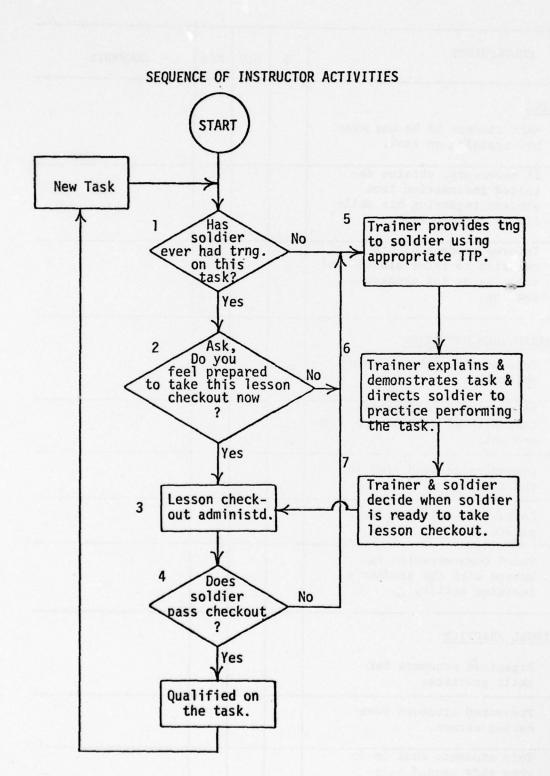
One of your main duties as a training manager is to teach squad, crew, and team leaders how to conduct performance oriented training. The booklet "Conducting Individual Training" has been prepared to help you do this. Therefore, in studying this lesson, you should make frequent reference to that publication.

You will be effective in training your trainers if you practice and learn to do the things that your subordinates will have to do when they act as trainers. This lesson lets you do just that. Having mastered the skills yourself, you can then better ensure that the skills are being properly learned by your trainers.

Things for you to do:

- 1. Read TRADOC Pam 600-11, pages 16-27
- Select one of the lessons from the Land Navigation TTP and use it to conduct a performance oriented class.

- 3. Assemble the equipment that you will need to teach the lesson to another person.
- 4. Teach the lesson to another person following instructions given in the TTP. You may need to review the basic principles and phases of performance based instruction (see Lesson 1). When you are ready, have another person monitor and critique your performance using the Checklist for Trainers as a guide (see pages 21-23).
- 5. Observe and critique a person who is conducting a performance oriented class, using the Checklist for Trainers as a guide.



# CHECKLIST FOR INSTRUCTORS

	CHECKPOINTS	Q	N/Q	N/A	COMMENTS
SCREEN	ING				
1.	Asks student if he has ever had training on task.				
2.	If necessary, obtains de- tailed information from student regarding his abil- ity to perform task.				dat ver
3.	Informs student of his decision to refer student for training or for checkout testing.		-100		
EXPLAN	ATION/DEMONSTRATION				
1.	Told students the training objective.	l ma			oet Ig al 5 to
2.	Demonstrated in location that allowed students to see well.				
3.	Demonstrated each step in the task.				
4.	Emphasized critical (key) points.				100
5.	Paced demonstration in accord with the student's learning ability.			A Solos Solos	
INDIVI	DUAL PRACTICE				
1.	Organized students for skill practice.				
2.	Prevented students from making errors.				
3.	Told students what to do when they needed help.				
4.	Avoided giving students unnecessary help.	15.48			

# CHECKLIST FOR INSTRUCTORS (Continued)

	CHECKPOINTS	Q	N/Q	N/A	COMMENTS
HECK	COUT	\$+5	03031	G	Kindda insunsiyan
1.	Read instructions clearly and slowly to students to be tested.	hedu	8 383	s1, 11	2 In absolute and
2.	Observed complete perform- ance of students being tested.			gales	al or stally has har
3.	Avoided correcting errors of students being tested until test was finished.				pair of bacocson ex
4.	Arranged testing conditions so students could not copy each other.			9750 98	atologi med um vi
5.	If any student received a Not Qualified, assigned him to an assistant or peer in- structor for remedial instruction.	947 8000 6001	5 (B)	os 1	orderest realists

Lesson 6: Preparing a Training Schedule

Terminal You will be able to prepare a training schedule that will

Objective: help you manage and the trainer conduct instruction.

Enabling 1. State the purpose of a training schedule Objectives:

2. .State the main components of a training schedule

References: ARTEP 7-15, Figure C-2

Some Information:

The purpose of a training schedule is to help you and the trainers manage training. It's like a map which lets everyone know who is doing what and where it is going on. It lets the relevant people know where they are supposed to be, what they are supposed to bring, and what they are supposed to do.

The key components of a training schedule are probably very familiar to you. They include date, time, subject, uniform and equipment requirements of students, trainers, and the documents which were used as references and indicate what parts of the subject will be covered in the class.

While a training schedule is mostly concerned with collective training, the interest here is on individual training. Individual training is best managed at the company level. The company commander is in a position to know the needs of his men, to assess their strengths and weaknesses, to provide the instructors and leadership for individual proficiency, and to schedule individual training along with unit training.

How does the company commander go about scheduling his individual training?

First, he looks at the master training schedule issued by his
 Battalion making note of the following:

- a. The dates for availability of ranges for qualification in weapons
- b. The dates for availability of tactical firing ranges
- c. The dates for availability of:
  - (1) squad, platoon and company areas for preparation of ARTEPs
  - (2) special areas for training troops in land navigation, physical fitness, anti-armor, etc.
- d. The dates for which the company has no priority on ranges or training areas. On these dates he must rely on areas adjacent to barracks for training.
- 2. Second, he looks at the task groups for individual training to determine which groups can best be integrated into the dates on the master schedule. For example, the task groups under the category Weapons-Technical can be integrated into the dates for areas close by barracks or while the unit is engaged in weapons qualification. Weapons-Tactical category task groups can best be integrated into the periods when the unit is on the tactical firing ranges. The task groups in Basic Combat Techniques can be taught and evaluated in integrating the individual training into the ARTEP preparation. The tasks in the task group "Battlefield Positions" are complementary to each individual's role in ARTEP defensive exercises. "Battlefield Movement" tasks are complementary to ARTEP offensive exercises, and "Surveillance and Intelligence" tasks are complementary to ARTEP patrolling and security exercises. Thus, the company commander can schedule these task groups for training by integrating his individual training schedule into these periods. The Task Training Packages on

these specific task groups are taken to the field and given priority.

- 3. Third, the company commander looks at the remaining task groups.
  - a. For those which require special training areas, such as land navigation, physical fitness, anti-armor training, etc., he schedules these subjects into the area availability dates.
  - b. For those task groups which require special equipment or training aids which must be drawn from a central facility, he plans for specific dates, and places his request for the equipment on those dates. The availability of equipment may be changed by higher headquarters commitments, and he will have to adjust his schedule accordingly.
  - c. For all other task groups, it is suggested the scheduling be delegated to the platoons in the company with a directive that the tasks be accomplished within a specific time frame and with a given priority.
- 4. Fourth, if the company commander has a priority for individual training which cannot be met due to untimely availability of ranges or areas or special equipment, then he should make such a request through his battalion commander for the facilities he needs.

There is an important difference between a training schedule for conventional training and one for performance training. In conventional training, the hours allocated for a class are fixed...30 minutes for splinting, one hour for artificial resuscitation, and so forth. If a "fast learner" learns the skill in less time than the schedule time, he spends the remaining time trying to keep busy. If a "slow learner" doesn't learn the skill in the scheduled time, it's tough.

In performance training, the hou allocated for a class <u>should</u> be variable. Some men need more time to learn a skill, others need less, and each man should get the amount of time (within reason) that he needs.

As you might guess, reconciling the "variable time" requirements of performance training with the "fixed time" requirement of a training schedule is difficult. One solution is to allocate time based on the estimated (or demonstrated) need of the <u>average</u> student in the group, and to adjust this time (up or down) depending on subsequent experience with the class. While this "moving average" would help solve the problem noted earlier, it would still result in some men needing less time and some men needing more time than was scheduled. Fast learners can be accommodated by using them as assistant trainers. Slow learners can be accommodated by <u>scheduling</u> time for remedial or make-up training.

# Things for you to do:

- 1. Carefully examine ARTEP 7-15, Figure C-2. Note that it focuses on scheduling collective training. Locate days and hours in this schedule when you think it might be possible to incorporate some individual training. Compare your answer with that given in Book Solutions, page 5.
- 2. Presumably, much individual training will take place when a unit is not engaged in collective training. Therefore, an individual training schedule would be needed for this. What information should it contain? Compare your answer with <u>Book Solutions</u>, page 5.

Lesson 7: Keeping a Record of Performance Test Results

Terminal You will be able to train your subordinates to keep de-Objective: tailed records of performance test results, to include preparation of reports of results to superiors.

Enabling 1. State the benefits of maintaining records of test Objective: results for individuals

Reference: Soldier's Manual, FM 7-11B1 Draft, Infantryman, Skill Level 1.
"Conducting Individual Training" Lesson 6.

#### Some Information:

To be sure that each man has been checked out on his required skills, it is necessary that the squad leader keep a record of all performance test results. This record will help him keep track of the progress of each soldier in his squad and also tell him who has or has not been tested. As more and more men are tested, he will not be able to keep the results in his head. That is why he must keep a written record.

Refer directly to Lesson <sup>6</sup> "Conducting Individual Training." There you will find a full set of handouts and complete directions about keeping records.

#### Things for you to do:

1. Perform the steps given in Lesson 6 of "Conducting Individual Training" making sure that you can record the results of performance tests in the same way that will be required of the squad leader.

Lesson 9: Quality Control

Terminal You will be able to analyze Squad Leaders Notebook, Objective: determine which deficiencies are present, and take corrective action.

Enabling 1. Describe the factors that may produce a high NQ rate, Objectives: a false Q rate, or a waste of resources.

Describe the standards required for evaluating a soldier as Q in a Task.

Reference: Lesson 4, this text.

Some Information:

The final part of your job is to evaluate the effectiveness of your training program and to take whatever actions are necessary to correct deficiencies. This action is known as "Quality Control."

Examine the Notebook Form of the Squad Leader to determine how many soldiers by number are "Q", "NQ", or "Not Observed" in each task.

A high Not Observed rate may indicate that the Task has not received high enough priority for scheduling and the squad leaders have not had a chance to observe their men.

A high NQ rate may indicate that the men have been screened or tested, but that they are having some difficulty in mastering the tasks.

A high Q rate indicates that the training has been conducted by the squad leaders, their men have been evaluated and they are Qualified.

A commander should not rely on these reports alone to make his evaluation. Quality Control of the training systems calls for frequent spot inspections by the commander, or by his staff, or both, to verify that the evaluations or proficiency tests have been given to the required

standards. Are those who are rated as Q truly Qualified? Is the high Q rate on the report an accurate assessment of the state of training or is it a false high Q rate? It is up to you to find out.

How do you go about making your spot checks? First, obtain the Task
Training Lesson and refresh yourself on the performance of the task.
You should be able to perform the task on your own, but if you need help,
get someone who is Qualified to check you out.

Second, go out to a unit which has been trained and evaluated as Qualified in the Task. Give performance test(s) to a soldier who is rated as Qualified and watch him perform. If he performs to standard, you have made a positive verification. If he does not, discuss the soldier's performance with his squad leader and tell him why you rated the man NQ. Make further spot checks to verify your findings.

Third, using a Quality Control Report Form, like the one attached to this lesson, list the names of the soldiers you have selected and the Tasks you have used for your evaluation. Make as many spot checks as you think are necessary and use as many forms as are required. You will find that the more you make spot checks, the more careful the squad leaders will come to be in evaluating their men. They do not want to rate a man as Q and later have you find him NQ in the same Task.

While the main goal of any training program is a true, high Q rate, another goal is that the training be efficient, that is, not use more resources than are actually needed. A training program that uses more

resources than are needed is wasteful. How do you decide if a program is efficient? Again, go out and observe classes being conducted and tests being administered.

The practical exercises for this lesson will give you a chance to decide which training deficiencies may result in a high NQ rate, a false high Q rate, or a waste of resources.

# Things for you to do:

1. Examine the list of training program deficiencies found in Possible Deficiencies in a Performance Oriented Training Program (see page 42, and on a separate sheet of paper, indicate, with one or more Xs, which of the three outcomes (High NQ rate, False High Q rate, or Waste) is likely to result from each deficiency. When you are finished, compare your answers with those found in <u>Book Solutions</u>, page 6.

Possible deficiencies in a performance oriented training program  1. Men are given training on skills they already have			Possil	le Out	come
Possible deficiencies in a performance oriented training program  1. Men are given training on skills they already have					
1. Men are given training on skills they already have		this becamen the district the same of the country o			
1. Men are given training on skills they already have					i
2. Less equipment and instructors are used than are needed	tra	ining program	Rate	Rate	Waste
3. More equipment and instructors are used than are needed	1.	Men are given training on skills they already have		E514 118	
4. Tasks, conditions, and standards covered in training differ from the tasks, conditions and standards used in testing.  5. Iradequate records are kept of student progress	2.	Less equipment and instructors are used than are needed			
from the tasks, conditions and standards used in testing.  5. Inadequate records are kept of student progress	3.	More equipment and instructors are used than are needed	5013.3	Agid	
6. Instructors don't know the skill or are poor teachers	4.		105	1W2 E	rales?
7. Testers don't know the skill or are poor testers	5.	Inadequate records are kept of student progress		aus X	
8. The explanation/demonstration/talk-through phase is omitted or is too short	6.	Instructors don't know the skill or are poor teachers	petel	st sid	4805
9. The explanation/demonstration/talk-through phase is poorly conducted	7.	Testers don't know the skill or are poor testers	6.00		
poorly conducted	8.				
11. "Nice to know" material is covered in the explanation/demonstration/talk-through phase	9.				
stration/talk-through phase	10.	The explanation/demonstration/talk-through phase is too long	5		
13. The independent practice phase is omitted or is too short.  14. The independent practice phase is poorly supervised  15. The independent practice phase is too long  16. The instructor fails to correct students who make mistakes during the talk-through or independent practice  17. Students waiting to be tested can see and hear students who are being tested	11.				
14. The independent practice phase is poorly supervised  15. The independent practice phase is too long	12.				
15. The independent practice phase is too long	13.	The independent practice phase is omitted or is too short .			
16. The instructor fails to correct students who make mistakes during the talk-through or independent practice	14.	The independent practice phase is poorly supervised			
during the talk-through or independent practice	15.	The independent practice phase is too long			
who are being tested	16.				
18. The tester gives students extra help when testing them	17.				
	18.	The tester gives students extra help when testing them			

QUALITY CONTROL REPORT INDIVIDUAL PROFICIENCY

	N	N M											
	ď	Y M G Y	and the same										
	NO.	Y D M											
-	8	M Y D M											e TOWARITE IS
	٥	Q X W Q								33	=		150
	βı	A W U A											TATAL
-	Ö	, и и х и											- Sayas
	DN O	H G X M											
	Νο	D M Y D M Y D											
	0	D M Y											lnt)
	80	YMGY											NAME (nrint)
-	8	M W D M W											
	Q NQ	D M Y D											
		Last 4 L		-	-	-	-		-	-	-		
		Gr Unit MOS.										 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		Gr L								 		 7 - 	* \$ 7 I
TASK		NAME						E-33					

Lesson 10. Motivation and Reinforcement

Terminal Objective:

You will be able to employ appropriate reinforcement techniques in motivating subordinates to acquire the knowledge and skills they need for effective job performance.

Enabling Objectives:

- 1. Describe the general role of reinforcement as it applies to learning.
- 2. List the various kinds of reinforcement techniques available to motivate and manage subordinates.
- List possible reinforcers to use in motivating trainees.

Reference: "Conducting Individual Training"

Some Information:

Like good managers, good trainers try to motivate their students. For example, they may state the goals of a block of instruction and then tell the soldier how important it is for him to acquire certain knowledge and skills. They may talk in terms of attaining a mission, saving lives, being prepared for unexpected situations, etc. They may also list the tests that the student must take and describe the consequences of failing these tests. Or they may suggest that promotions and future assignments are directly related to how well the soldier does in the course right now.

Some of the consequences of good (or poor) performance by the student are immediate and some are more distant; also, some are positive while others are negative. For example:

<sup>&</sup>quot;Since you have completed your work early, you can have the rest of the day off."

<sup>(</sup>Immediate, positive reinforcement)

<sup>&</sup>quot;Those of you who don't get done today will have to stay overtime."
(Immediate, negative reinforcement)

"Good work in this course will get you promoted to E4 in 6 months."
(Distant, positive reinforcement)
"If you fail the final test, you won't graduate till after Christmas."
(Distant, negative reinforcement)

In these examples, the reinforcements were, respectively: time off, inability to leave on time, promotion, and delay in graduating. In general, then, a reinforcer is something a manager (or trainer) does to improve the performance of a subordinate. Some reinforcers are provided to increase a certain behavior, while others are provided to decrease a certain behavior. People try to attain positive reinforcements and avoid negative ones.

To motivate subordinates a good manager does these kinds of things:

- a. Checks on progress of subordinates in performance of tasks.
- b. Gives positive reinforcement for good or acceptable performance.
- c. Provides information (corrective feedback) to help an individual improve unacceptable performance. Whether this is positive or negative doesn't matter; the main thing is that it influences how the individual performs in the future.
- d. Uses negative reinforcement sparingly. The use of positive reinforcement in conjunction with negative seems to have a more desirable effect on the recipient.

In interacting with and guiding students, a good trainer engages in the same practices. So wherever you see "manager" and "subordinate," you should also read "trainer" and "student." To "put teeth" in a request to a subordinate, a manager may indicate that "the commander is vitally interested in how well this work progresses." This is a way of saying that the commander will provide strong negative reinforcement to the subordinate if the proper progress is not attained. As a further motivation, the commander may actually visit the work site, thereby

lending credence to the interpretation that the work is important and the subordinate should do his very best. Monitoring by superiors is an important management techniques, but it must actually occur, not merely be promised.

Managers and trainers should use positive reinforcement liberally.

Thus, when a subordinate does a good job, let him know. The chances

are increased that the subordinate will continue to perform acceptably,

and more importantly, that his future performance will improve.

Sometimes a manager can provide immediate positive reinforcement for good performance. Time off is a reward that is generally welcome to any subordinate. If it is within your power to give this kind of reinforcement, don't be reluctant to use it. Sometimes you might offer your subordinate a choice among several reinforcers. This way you'll find out which ones are more valuable. You should be inventive and creative in this regard, and you should encourage your trainers to follow your lead. Trainers need to practice reinforcing student performance, and they will more quickly come to use such practices if they are reinforced by you.

#### Things for you to do:

1. Visit areas where squad leaders are conducting individual or group training. To the extent possible, observe each trainer separately and count the number of positive and number of negative reinforcements he provides to his students. Note particularly whether shouting, harrassment, sarcasm and other negative reinforcers are being overworked. Then give him useful information about his reinforcement practices.

2. During which phase of performance oriented training--explanation/
demonstration, skill practice, or checkout testing--would you expect
to observe the greatest number of reinforcements? Explain your answer
and compare it with the answer found in <u>Book Solutions</u>, page 7.

BOOK SOLUTIONS TO ACCOMPANY MANAGING INDIVIDUAL TRAINING

Book Solution: Lesson 1

## PRINCIPLES OF PERFORMANCE ORIENTED TRAINING

- 1. The student learns by actually performing the task. The emphasis is on "hands on" practice. (Performance-Based Instruction)
- The student is required to master the task. Scoring is on a Go/No-Go basis. (Absolute Criterion)
- 3. The student is only given the technical information that he actually needs in order to perform the task and he is given the information when he can use it...not before. (Functional Context)
- 4. The student is allowed to progress at his pace. Students who need more time to master the task, get more time. Students who need less time to master the task are permitted to move on. (Individualization)
- 5. The student's practice performance is observed by a qualified person and the student is told when he does well and when he makes mistakes. When he makes mistakes, he is told what is wrong and how to correct it. (Feedback)
- 6. After the student has had a chance to practice the task, he is checked-out by a qualified NCO or officer to see if he has mastered the task. (Quality Control)

# STUPS IN COMDUCTING PERFORMANCE CREDATED TRAINING

- 1. Explain and demonstrate to the student the task you want him to learn. If possible, give him a step-by-step talk-through. (Explanation/Demonstration)
- 2. Let the student practice the task at his own pace. Observe his practice and give him feedback. (Skill Practice)
- 3. Then the student feels that he is ready for a check-out, administer the performance test to him. (Check-out Testing)

1. There is no certain period in the schedule when individual training could be incorporated, but these dates and hours are suggested:

Date	Hours	Reaso	<u>on</u>
7 Apr	1300-1630	Weapon	maintenance
could	easily accommodate	individual	training on
mainte	enance of a man's r	ifle	

- 8 Apr 0800-1700 For those men who are not needed for Administrative Support, their time could be spent on individual training.
- 9 Apr 1300-1700 This Education time could readily be directed toward needed individual training.

You may disagree with these times or you may locate other times for individual training.

Since an individual schedule must serve the same purposes as a collective one (who does what, where, and with what), it should contain similar kinds of information.

	The second second second is a second	Possib	le Outc	ome
	ssible deficiencies in a performance oriented ining program. (SOLUTION)	High NQ Rate	False High Q Rate	Waste
1.	Men are given training on skills they already have	2.000000	x	×
2.	Less equipment and instructors are used than are needed	x		•
3.	More equipment and instructors are used than are needed	a enski		x
4.	Tasks, conditions, and standards covered in training differ from the tasks, conditions and standards used in testing	×	x	
5.	Inadequate records are kept of student progress			x
6.	Instructors don't know the skill or are poor teachers	x		x
7.	Testers don't know the skill or are poor testers	x	x	×
8.	The explanation/demonstration/talk-through phase is omitted or is too short	x		x
9.	The explanation/demonstration/talk-through phase is poorly conducted	x		x
10.	The explanation/demonstration/talk-through phase is too long			x
11.	"Nice to know" material is covered in the explanation/demonstration/talk-through phase			x
12.	Students cannot hear the explanation or see the demonstration	x		
13.	The independent practice phase is omitted or is too short .	×		
14.	The independent practice phase is poorly supervised	x		x
15.	The independent practice phase is too long			x .
16.	The instructor fails to correct students who make mistakes during the talk-through or independent practice	x		x
17.	Students waiting to be tested can see and hear students who are being tested		x	
18.	The tester gives students extra help when testing them		x	

The greatest number of reinforcements should occur during skill practice. In this phase the soldier often performs with uncertainty, therefore, he can benefit most from reinforcements at this time. During check-out testing the tester should provide no reinforcement until the test is over.

Then he may comment on the soldier's performance. During the explanation/demonstration phase, there should be little opportunity for the trainer to reinforce soldiers since the soldiers should be doing nothing but observing what the trainer is doing.

#### APPENDIX F

# CONDUCTING INDIVIDUAL TRAINING FOREWORD

Personnel may be assigned duties as unit trainers prior to their attending a formally organized Instructor Training Course. In this duty position, they may be required to administer individual performance tests, evaluate the performance capabilities of soldiers, and conduct performance-based training.

This program of instruction outlines a course of study that will help the unit Training Manager train his trainers in the skills they will need to perform their duties. Specifically, the course is designed to provide trainers with opportunities to practice the knowledge and skills they will need to conduct performance oriented training.

# Materials Required

You will need the following materials in order to complete the program:

TRADOC Pam 600-11, Guidelines for the Conduct of Performance Oriented Training

Soldier's Manual for MOS 11B (Infantryman)

Soldier's Manual for MOS 11C (Indirect Fire Infantryman)

# Organization of Program

This booklet consists of the following lessons:

- 1. Introduction to Performance-Oriented Training
- 2. Discussion of Task Categories, Functional Groups, and Task Training Packages
- 3. Using Screening Procedures and Judging the Individual Proficiency of men
- 4. Administering a Performance Test
- 5. Conducting a Class Using the Performance-Oriented Training System
- 6. Keeping a Record of Performance Test Results

# Special Note

Most of the lessons require you to give "Handouts" to your students. A copy of each handout is included with the appropriate lesson. Additional copies of these handouts, for distribution to your students, can be made on Xerox or other type of duplicat ing machine.

1. Introduction to Performance Oriented Training

Objective: The student will be able to describe the basic

principles and phases of performance-oriented

training.

Ref: TRADOC Pam 600-11, pages 3-4, 23-27,32-35, and 36-40.

Activities: The instructor will:

1. State the objective of the training program.

- 2. Administer the Instructor Survey\* and then discuss the answers given to it by students.
- 3. Require the students to read the above references.
- 4. Answer any questions that the students may have about the material that they read.
- 5. Require the students, in their own words, to describe the six principles of performance-oriented training, and then critique them on their work.\*
- 6. Require the students, in their own words, to describe the three steps in the conduct phase of performance-oriented training, and then critique them on their work.\*
- 7. Describe and demonstrate the conduct phase of performance oriented training.\*

#### The student will:

- 1. Complete the Instructor Survey and participate in a discussion of the points covered on the survey.
- 2. Read the reference materials assigned by the instructor.
- Describe, in his own words, in writing, the six principles
  of performance-oriented training and the three steps in
  the conduct phase of performance-oriented training and
  then participate in a discussion of the principles and steps.
- 4. Observe a demonstration of the conduct phase of performance oriented training.

\*See supporting materials on pages 6-7 and 9-15.

#### INSTRUCTOR SURVEY

In each item select the one best answer.

- 1. In training soldiers, which procedure should you use?
  - a. Tell them what they have to do.
  - b. Have a demonstration and let the rest watch it.
  - c. Have a demonstration and let the soldiers practice.
  - d. Have a demonstration, let the soldiers practice, and then check each one out individually.
- 2. Which is the most practical way to keep track of what your men can do?
  - a. Fill out a report and send it in to the Company Training NCO.
  - b. Let the platoon leader and training NCO keep the record from the training schedule.
  - c. Keep the record of each individual in your pocket notebook.
  - d. Keep it in your head.
- 3. A lesson plan should contain:
  - a. A performance test and administrative details.
  - b. A planned schedule for your introduction, demonstration, and practical work with a time allocation for each.
  - c. Administrative details alone.
  - d. A performance test alone.

- 4. Suppose you received the following guidance, "The men in your unit are not as sharp as they should be in squad tactical movements."
  What should you do?
  - a. Put all your men through squad tactical movements.
  - b. Select the squad tactical movements you think men need training in and give the training.
  - c. Ask your superior which men were weak.
  - d. Do nothing, since your superior didn't tell you to conduct training in squad movements.
- 5. The Company Commander has assigned you responsibility for conducting night compass training for twelve new men who have joined the unit. Who is responsible for selecting the area where instruction will occur and obtaining the compasses?
  - a. The Company Commander
- c. The Training NCO
- b. The Supply Sergeant
- d. You
- 6. How skilled should you be in performing the tasks in which you are instructing?
  - a. Highly skilled.
  - b. Skilled enough to pass the performance test.
  - c. Not necessary to be skilled in the tasks.
- 7. Why should you report the result of performance tests to your superior?
  - a. So that he will know you conducted the training.
  - b. So that he will know who passed and who failed.
  - c. So that he can make arrangements for retraining and retesting of those who failed.
  - d. So that he can make out his training reports.

#### INSTRUCTOR SURVEY

- d. is the best answer. The other answers aren't good because they skip something -- don't let the soldier practice; don't provide for a check out; etc.
- 2. c. is the best answer. The simplest and best way for a squad, crew, or team leader to keep track of what his men can do is to keep a pocket notebook with a record of each man's skill in it.
- 3. a. is the best answer. It allows you to be flexible in the time you take in conducting your training. Some men may need more practice time. Answer b places you on too rigid a time schedule for each phase of training. Answers c and d are each insufficient.
- 4. b. is the best answer. Since the guidance wasn't clear, you should decide what specific training should be given.
- 5. d. is the best answer. You are the one who will have to do it. You might have the Supply Sergeant get the compasses, and have to ask the Training NCO to get the area, but the responsibility is yours.
- 6. b. is the best answer. You don't have to be highly skilled but you must be able to perform well enough to pass the test or you shouldn't be teaching the class.
- 7. c. is the best answer. The basic idea is to make sure each man can perform as required. So you help your superior decide what kinds of retraining and retesting are needed.

#### PRINCIPLES OF PERFORMANCE ORIENTED TRAINING

- The student learns by actually performing the task. The emphasis is on "hands on" training. (Performance-Based Instruction)
- 2. The student is required to master the task. Scoring is on a Go/No-Go basis. (Absolute Criterion)
- 3. The student is only given the information that he actually needs in order to perform the task and he is given the information when he can use it...not before. (Functional Context)
- 4. The student is allowed to progress at his pace. Students who need more time to master the task, get more time. Students who need less time to master the task get less time. (Individualization)
- 5. The student's practice performance is observed by a qualified person and the student is told when he does well and when he makes mistakes. When he makes mistakes, he is told what is wrong and how to correct it. (Feedback)
- 6. After the student has had a chance to practice the skill, he is given a check-out by a qualified NCO or officer to see if he has mastered the task.

  (Quality Control)

## STEPS IN CONDUCT PHASE OF PERFORMANCE ORIENTED TRAINING

- Explain and demonstrate to the student the task you want him to learn. If possible, give him a step-by-step talk-through. (Explanation/ Demonstration)
- 2. Let the student practice the task at his own pace. Observe his practice and give him feedback. (Skill Practice)
- 3. When the student feels that he is ready for a check-out, administer the performance test to him. (Check-out Testing)

# SUGGESTED SCENARIO FOR DEMONSTRATION OF CONDUCT PHASE OF PERFORMANCE ORIENTED TRAINING (Folding a Map)

Now that you have a fairly clear grasp of the six performance training principles, we will demonstrate their application and at the same time give you the rules of an effective presentation. (pass out one simulated map (sheet of paper 24 x 36 inches) to each student.) We will all work with these maps.

The training objective for this instruction is that you will be able to fold a map so that it can be easily carried and used during tactical operations. Of course, you can probably do this in several ways, but we are going to follow a fixed procedure that has the steps for presenting proper instruction.

Before I begin the demonstration of what you will be required to do, there are a number of rules to follow in giving your demonstration.

(Write on Blackboard.)

EXPLAIN EACH STEP AS YOU DEMONSTRATE

HAVE STUDENTS PERFORM AS YOU DEMONSTRATE

BE SURE THEY CAN HEAR

BE SURE THEY CAN SEE

USE WORDS THEY CAN UNDERSTAND

I am sure you have heard these rules before, However, write them down, and follow them when you are giving your demonstration.

# A. Introduction

- The purposes of the task you will learn now are to re-emphasize the principles we have discussed and to demonstrate the phases of performance training--demonstration, skill practice, and check-out testing.
- 2. During the explanation--demonstration, note the application of as many principles as you can--the principles of performance training and rules for effective demonstration.
- 3. When all of you have learned the task, we will discuss what happened in relation to the principles we have established.

## B. Explanation-Demonstration

- (Demonstrate and explain, at a pace suited to your students, how to fold a map. Ask each student to perform the steps as you perform them.)
- Stress care and neatness in folding the map so that the completed product will have good form.)

# C. Skill Practice

- (Explain that the explanation-demonstration phase is completed and that the next phase is skill practice.)
  - 2. (Give each student another simulated map.)
- 3. (Explain that they are to form the map at their own pace, and to ask questions or ask for help, if they need it. Remind them that the time limit for the test is 2 minutes.)

- 4. (Explain that when anyone needs help, you will give it or you may assign one or more students as peer coaches.)
- 5. (Assign fast learners who have been checked-out to help slower learners, if they need it.)
  - 6. (Let each student practice until he is ready to take the test.)
- D. <u>Check-out Testing</u> (Checkout only 2 or 3 at a time--you cannot watch the steps being performed by a larger number.)
  - 1. (Give each student another simulated map.)
- 2. You will prepare a map so it may be easily carried and referenced while on an extended patrol. You have 2 minutes. Are there any questions? All right, begin.
  - 3. (Stop students at the end of 2 minutes.)
  - 4. (Identify "GO" and "NO-GO" students.)

## E. Review of Process

- Even though folding a map is a simple task, we just covered each phase that will usually be included in performance training.
  - 2. What was the first phase? (Demonstration)
  - 3. What was the phase after the demonstration? (Skill Practice)
- 4. What is the difference between the demonstration and skill practice phases? (Discussion of this point should emphasize that the skill practice is designed to have the students practice performing the task without any prompting or coaching.)

5. Usually, good performance training will include obvious phases—demonstration, skill practice, and check—out. There will be some occasions, however, when you will want to vary the process. If a task is easy to learn or the students are especially fast, you can probably skip the individual practice phase. Still, the check—out phase for each individual is essential in performance training.

# SAMPLE PERFORMANCE TEST I: FOLDING A MAP

# Test Conditions:

Test will be conducted indoors.

# Necessary Equipment:

Unfolded standard military mapsheet Razor blade, knife or scissors

# Test Situation: (TESTER WILL READ TO TRAINEE)

"You will prepare a map so that it can be easily carried and referenced while on an extended patrol. You have 2 minutes."

# Performance Measures: (Actions)

		GO	NO GO
Α.	Folds map in half vertically twice and then unfolds map.	_	_
В.	Folds map in half horizontally twice and then unfolds map.	_	_
c.	Cuts map horizontally along middle fold to outer vertical folds without tearing map		_
D.	Folds map in the middle vertically, keeping the two outer flaps flat and at right angles to center fold.		_
E.	Folds one cut portion to the right and other cut portion to the left.		_
F.	Folds map on middle horizontal fold.	_	_
G.	Folds map on remaining vertical fold.		_
н.	Folds map on remaining horizontal fold.		

# Test Standard:

Map must be folded so 1/16 of total area is exposed and 1/16 section can be referred to without refolding entire map. Task must be completed in 2 minutes.

Lesson 2: Discussion of Task Categories, Functional Groups, and Task
Training Packages

Objective: The student will be able to state why tasks must be grouped for training and recording purposes.

Reference: Soldier's Manual for MOS 11B and MOS 11C

Activities: The Instructor will:

 Describe how tasks have been grouped and formed into Task Training Packages.

The Student will:

 Study the task groupings and participate in a discussion of the need for such groupings.

Some Information:

The Soldier's Manual for MOS 11B1, Infantryman, Skill Level One, Grades #E3 and E4, lists the tasks that are to be performed by the soldier before he starts learning the tasks required for Skill Level Two. Some tasks are basic or common to all 11B soldiers, and some are performed only by men in special duty positions.

The basic tasks for Skill Level One total 63. If a squad leader were required to train and keep individual proficiency records on each of these tasks on each soldier in his squad, the work would be overwhelming. To simplify training and recording of each soldier's proficiency, the tasks have been grouped, first into four categories, and then into functional groups.

HANDOUT "Task Categories and Functional Groups for Duty Position, Basic Infantryman, MOS 11B1"

1. Weapons & Equipment - Technical

This category includes the <u>mechanical operation</u> tasks of a weapon or piece of equipment.

## Task Categories and Functional Groups for Duty Position

#### Basic Infantryman MOS 11B1

Task Category			Functional Group		
I. W	Jeapons & Equipment - Technical	1. 2.	M16A1 Rifle M203		
		3.	Starlight Scope		
		4.	LAW		
		5.	90 mm RCLR		
		6.	DRAGON		
II. W	eapons & Equipment - Tactical	7.	M16A1 Rifle		
		8.	M203		
		9.	Hand Grenades		
		10.	Claymore		
		11.	Mines		
		12.	Enemy Armor		
		13.	Starlight Scope		
		14.	LAW		
		15.	90 mm RCLR		
		16.	DRAGON		
		17.	M60 MG		
III. B	asic Combat Techniques	18.	Battlefield Positions and Camouflage		
		19.	Battlefield Movement		
		20.	Surveillance and Intelligence		
IV. B	attlefield Survival	21.	First Aid		
		22.	Protective Mask		
		23.			
		24.			
		25.	Individual Fitness		

#### II. Weapons & Equipment - Tactical

Included in this category are the <u>tactical employment</u> tasks of a weapon or piece of equipment.

#### III. Basic Combat Techniques

In this category are the additional tasks that all soldiers must be able to perform on the battlefield in tactical operations.

#### IV. Battlefield Survival

Life saving tasks such as First Aid and Protection Against Chemical Warfare are in this category.

Each category contains sets of tasks that have been combined to form Functional Groups. There are 25 Functional Groups listed for the Basic Infantryman, and each Group contains from 1 to 6 tasks. The tasks in each Functional Group constitute a Task Training Package (TTP). Each TTP contains training and evaluation materials.

HANDOUT "Contents of Task Training Packages for MOS 11B"

This Handout lists the tasks which are in each functional group's TTP. Each TTP contains the training and testing materials needed to learn that set of related tasks.

For example, if the men in the squad are to be given <u>technical</u> training in the M16Al Rifle, the trainer uses TTP #1 for "M16Al Rifle - Technical."

This package covers the four tasks listed in the Handout. When each soldier becomes proficient in all four tasks, he can be scores as Qualified in this group of tasks.

Similarly, if the same soldier can perform the tasks and is checked out in TTP #7 "M16Al Rifle - Tactical" he can be listed as Qualified for the two tasks in that group.

# TASK CATEGORY: WEAPONS AND EQUIPMENT - TECHNICAL

Load, unload an MI6Al magazine Load, reduce a stoppage, unload, and 1. Mi6al Rifle Maintain an Mi6al rifle, magazines Zero an M16Al rifle and ammunition

clear an M16Al rifle

- Load, unload, and clear M203 grenade M203 Grenade Launcher Maintain an M203 grenade launcher Zero an M203 grenade launcher and ammunition launcher
- Starlight Scope AN/PVS-2 Maintain starlight scope Mount/dismount on M16Al rifle Zero on M16Al rifle
- Prepare M72A2 LAW for firing/restore to carrying configuration
  - Load, reduce stoppage, unload, and Maintain 90 mm RCLR and ammo Boresight the 90 mm RCLR clear 90 mm RCLR 90 mm RCLR
- erform pre-op checks Maintain DRAGON
- TASK CATEGORY: WEAPONS AND EQUIPMENT TACTICAL Engage targets with a Mi6Al rifile Prepare and use aiming stakes for Mi6Al 7. M16Al Rifle
- Engage targets with an M203 grenade launcher and apply immediate action Prepare and use aiming stakes to reduce a stoppage M203 Grenade Launcher

# CONTENT OF TASK TRAINING PACKAGES FOR MOS 1181

- Engage enemy with hand greandes Maintain hand grenades 9. Hand Grenades
- Claymore Install/recover a Claymore Fire a Claymore 9
- Mines Emplace and recover M16Al AP and M21 AT Detect and mark enemy mines and booby traps 1
- Recognize vulnerability enemy armor to M12A1, M203 and M60 Enemy Armor 12.
- Engage target with rifle using AN/PVS-2 13. Starlight Scope Conduct surveillance using AN/PVS-2 Engage a target with a LAW 14. LAW

Apply immediate action on LAW to

- Prepare range cards, MAW correct a malfunction Camouflage MAW psn Prepare MAW psn Engage targets 90 mm RCLR 15.
- Engage targets w DRAGON 16.
- Load, reduce stoppage, unload and clear M60 Machine Gun Engage targets 17.

# TASK CATEGO. . BASIC COMBAT TECHNIQUES

- Select temporary battlefield position Construct individual defensive Camouflage/conceal defensive position 18. Battlefield Positions and Camouflage Camouflage/conceal equipment Camouflage/conceal self Clear fields of fire position
- Move under direct fire; rush/crawl Battlefield Movement Move as a member of a fire team React to indirect fire Negotiate obstacles React to flares 19.
- Collect/report information; SALUTE Conduct day and night surveillance Process known or suspected enemy Surveillance and Intelligence Use challenge and password Estimate range personnel 20.

## TASK CATEGORY: BATTLEFIELD SURVIVAI

- 21. First Aid Apply the four life saving measures Apply first aid for burns Protective Mask Put on mask 22.
  - Protection against CBR Maintain mask

23.

- Apply artificial respiration First Aid CBR Casualty Administer atropine Decontaminate self 24.
- Maintain individual physical fitness Physical Fitness 25.

Look at the groups under the Task Category: Basic Combat Techniques.

Group #18 "Battlefield Positions and Camouflage" includes task pertaining to selection and preparation of defensive positions. Group #19 "Battlefield Movement" contains the tasks that cover an individual's movement on the battlefield. Group #20 "Surveillance and Intelligence" includes the baskc tasks of gathering information about the enemy and basic security. TTPs #18, 19, and 20 provide the corresponding training and testing materials for these task categories.

Next, look at the groups under the Task Category: Battlefield

Survival. These groups and the tasks that make them up are familiar to

you as being tasks that are basic for every soldier in any duty assignment.

The next two handouts show how the tasks are similarly grouped for the Indirect Fire Infantryman, MOS 11C1. Some tasks are unique to 11C and some are required of both 11C and 11B.

HANDOUT "Task Categories and Functional Groups for Duty Position Indirect Fire Infantryman MOS 11C1"

HANDOUT "Content of Task Training Packages for MOS 11C:

Each TTP (whether for MOS 11B or 11C) consists of one or more lessons.

Each lesson, in turn, contains the following:

- 1. Title of lesson
- 2. Number of lesson
- 3. Task requirement
- 4. Conditions for task performance, including the situation and equipment and materials
- 5. Standards based on Soldier's Manual
- 6. Prerequisite knowledge and skills
- 7. Actions taken to perform task
- 8. Training resources
- Guide for instructors, including how to develop and conduct a lesson check-out.

#### Task Categories and Functional Groups for Duty Position Indirect Fire Infantryman MOS 11C1

Tas	k Category	Fur	actional Group
I.	Weapons & Equipment - Technical	1. 2. 3. 4. 5. 6.	M16A1 Rifle M203 LAW .45 Cal Pistol Computing-Mortars FM Tactical Radios Field Telephones
п.	Weapons & Equipment - Tactical	8. 9. 10. 11. 12. 13. 14.	M16A1 Rifle M203 LAW Hand Grenades Claymore Mines FO Procedure-Mortar
III.	Basic Combat Techniques	16. 17. 18. 19.	Battlefield Movement Surveillance & Intelligence
IV.	Battlefield Survival	20. 21. 22. 23. 24.	

# TASK CATEGORY: WEAPONS & EQUIPMENT - TECHNICAL

Mistal Rifle Maintain Mistal rifle, magazines, and Zero an M16Al rifle

Load, reduce a stoppage, unload and clear Load and unload an M16Al magazine an M16Al rifle

M203 Grenade Launcher Maintain M203 grenade launcher and awmo Load, unload, and clear an M203 Zero an M203 grenade launcher

Light Anti Tank Weapon (LAW) Prepare for firing: restore LAW to carrying psn 3

Load, reduce a stoppage, unload and clear Engage targets with a pistol Maintain .45 Pistol

Prepare M16 plotting board for operation and determine initial firing data Computing - Mortars (pivot point)

Maintain tactical FM radios AN/PRC 77; Maintain tactical FM radios AN/VRC-46 Process subsequent FO corrections AN/VRC-64 and AN/GRC-160 FM Tactical Radios 9

Prepare/operate tactical FM radios AN/VRC-64 and AN/VRC-160. Prepare/operate tactical FM radios AN/VRC-46 and AN/VRC-47 and AN/VRC-47

Maintain IA-312 and IA-1 telephones Install/operate field telephones Field Telephones

TASK CATEGORY: WEAPONS & EQUIPMENT - TACTICAL

Engage targets with Mi6Al rifle 8. MISA1 Rifle

CONTENTS OF TASK TRAINING PACKAGES FOR MOS 11C1

immediate action to reduce a stoppage Engage targets with an M203 and apply M203 Grenade Launcher

Apply immediate action for a malfunction Light Antitank Weapon (LAW) Engage targets with a LAW 9

Engage targets with hand grenades Maintain hand grenades Hand Grenades 1

Claymore Mine Install/recover a claymore Fire a claymore 12.

13.

Detect enemy mines

Forward Observer Procedure - Mortars Call for/adjust fire - bracketing method Call for/adjust fire - creeping method 14.

using the Kal 61 with KTC 1400 numerical frequencies and item number identifiers Use CEOI extract to determine call signs, Establish and enter or leave a radio net decrypt numbers and grid zone letters Authenticate transmission and encrypt/ Transmit and receive radio messages Radio Messages 15.

Encode/decode messages using the tactical operation code, KTC 600

TASK CATEGORY: BASIC COMBAT TECHNIQUES

Construct individual defensive position Camouflage/conceal defensive position Select temporary battlefield position Battlefield Positions and Camouflage Camouflage/conceal equipment Camouflage/conceal selt Clear fields of fire 16.

Battlefield Movement Move as a member of a mortar squad (81 mm) Move under direct fire; rush/crawl React to indirect fire Negotiate obstacles react to flares 17.

Conduct day and night surveillance Collect/report information; SALUTE Process known or suspected enemy Surveillance and Intelligence Use challenge and password Estimate range personnel 18.

Land Navigation Determine azimuth using an M2 compass Determine the elevation of a point on Identify terrain features on the map Determine the grid coordinates of a point on a military map the ground 13

20. First Aid Apply the four life saving measures TASK CATEGORY: BATTLEFIELD SURVIVAL Apply first aid for burns

Protective Mask Maintain mask Put on mask 21.

Determine personnel needs and personnel Identify NBC hazards and take appro-Decontaminate self and equipment Protection against CBR priate actions Use cover hygiene

Administer antidote to a nerve agent Apply artificial respiration First Aid CBR Casualty casualty 23.

Individual Fitness Maintain individual physical fitness 24.

Lesson 3: Using Screening Procedures and Judging the Individual Proficiency of Men

Terminal The student will be able to judge if a man is qualified or not qualified to perform the designated tasks of his job. He will do this by using screening procedures and by observing actual job performance.

Enabling 2 1. State the basic need for individual proficiency data. Objectives:

3. Indicate when screening procedures should be used.

State the purpose of screening procedures.

References: Task Training Packages for MOS 11B and 11C.

Activities: The instructor will:

1. Describe why proficiency information is needed.

2. State two ways to obtain proficiency information.

Discuss possible screening procedures and how they might be used.

4. Direct the student to practice using screening procedures.

5. Critique the student after he has practiced the screening procedures.

The student will:

1. Practice using screening procedures with other students.

2. Participate in critique of screening procedures.

<sup>1</sup> Terminal objective: The action that the student should be able to perform after completing the lesson.

<sup>&</sup>lt;sup>2</sup>Enabling objective: The knowledge that the student must acquire in the lesson and which he must use in order to reach the terminal objective. The conditions and standards of performance for these objectives are included in the descriptions of the student and instructor activities.

Some Information

When new men join a unit, no one knows for sure what tasks they can perform and what ones they cannot perform. To enable the unit and higher head quarters to have adequate records of individual proficiency, and to schedule needed individual training, it is necessary to assess each new man as soon as possible after he joins the unit. This job falls on the squad leader. He will do this by observing a man as he performs the duties of his MOS and by using screening procedures.

Ideally, each Task Training Package (TTP) should contain its own screening components. At this time, however, screening, training, and evaluation components are available for only some tasks of some TTPs. These tasks were judged by officers and NCOs to be particularly difficult to learn, and special efforts were devoted to developing training packages for them. A list of these tasks is shown in the next handout.

HANDOUT Tasks for which Screening, Training, and Evaluation Components are Available

For these tasks, informal screening procedures will be used. A first step will be to ask a man if he has had previous training on a given task. If he has had no training, he will be scheduled to complete the appropriate task. If he has had previous training, and is confident that he can perform well, the squad leader may ask him to take immediately the last checkout of a lesson set. If a man passes this checkout, he may then be asked to help other students learn the tasks, or he may be directed to consider evaluating himself on another task. If he fails, he begins training on the task.

The tasks and TTPs for which screening and other components are available are the ones that were selected for use in the Field Test to be conducted in the 7th Division, October-December 1976.

Tasks for which Screening, Training & Evaluation Components are Available

#### Surveillance and Intelligence

- 1. Estimate range
- 2. Process known or suspected enemy personnel

#### AT and AP Mines

- 1. Emplace and recover M16 AP mines
- 2. Emplace and recover M21 AT mines

#### Resuscitation Chemical Agent Casualty

- 1. Putting on gas mask
- 2. Treating a Chemical Agent Casualty

#### Recognize Vulnerability Armor

Recognize vulnerability of armor to M16A1, M2O3, LAW

#### Encrypt/Decrypt grid coordinates

- 1. Encrypt and Decrypt grid coordinates using the KAL 61
- 2. Authenticate transmissions

#### Land Navigation

- 1. Determine a magnetic azimuth between two known points
- 2. Determine grid coordinates of a point on a military map using the military grid reference system
- 3. Determine a grid azimuth between two given points on a map
- 4. Orient a map using a lensatic compass
- 5. Convert a magnetic azimuth to a grid azimuth or a grid azimuth to a magnetic azimuth
- 6. Convert an azimuth to a back azimuth and plot the back azimuth using a protractor
- 7. Determine the elevation of a point on the ground using a map
- 8. Relate topographic symbols and contour lines on a map to terrain features on the ground
- 9. Determine a location on the ground
- 10. Measure ground distance on a map
- 11. Determine distance while moving on foot from one point to another
- 12. Navigate from one position on the ground to another point--daylight
- 13. Navigate from one position on the ground to another point--night

#### Conduct Performance Training

1. Conduct a performance-oriented training class

#### Organize Tank Hunter-Killer Team

- 1. Organize a HTR-KLR Team
- 2. Employ tank HTR-KLR Team

#### Forward Observer Procedures

- 1. Determine azimuth using an M-2 compass
- 2. Orient a map using an M-2 compass
- 3. Estimate lateral distance
- 4. Locate target via grid coordinate method and make initial call for fire
- Locate target via shift from known point method and make initial call for fire
- 6. Locate target via polar plot method and make initial call for fire
- 7. Adjust fire using the bracketing method
- 8. Call for/adjust indirect fire using the bracketing method of adjustment
- 9. Danger close: Locate target via grid coordinate method and make initial call for fire
- 10. Danger close: Locate target via shift from known point method and make initial call for fire
- 11. Danger close: Adjust fire using the creeping method
- 12. Danger close: Call for/adjust indirect fire using the creeping method of adjustment

#### Boresight Mortar

1. Boresight the 81mm mortar

If the man has had previous training but is not confident about how well he can perform now, the squad leader should direct him to study the lessons before he takes a lesson checkout.

Lesson 4: Administering A Performance Test

Terminal The student will be able to administer a performance test, Objective: to include the assembling of needed test equipment.

Enabling 1. State the critical steps in administering a performance Objectives: test.

2. State his responsibility for obtaining needed test equipment.

Reference: TRADOC Pam 600-11, pps. 16-20 and 26-27

Activities: The instructor will:

1. Describe the proper procedure for administering a performance test.

2. Remind the student that it is his responsibility to assemble equipment needed to administer a performance test.

3. Distribute the Checklist for Testers to the students and show them how to use the Checklist as a guide when rating a person who is administering a performance test.\*

4. Direct the student to administer one of the lesson checkouts in the Land Navigation TTP.

5. Critique the student after the student has completed administering the performance test.

The student will:

- 1. Assemble equipment needed to administer a performance test.
- 2. Administer his performance test to another student.
- 3. Be tested by another student.
- 4. Observe other students administer a performance test and assist in the critique of the test administrator's performance.

<sup>\*</sup>See supporting materials on page 28.

#### Some Information:

- 1. For a test to be a good measuring instrument, it must be reliably administered.
- 2. Reliable test administration depends on the instructor. He must see that the testing conditions are met, see that no step is omitted, see that each step is performed correctly, and see that the time limit (if any) is met.
- 3. Reliable test administration also means that the instructor must be sure that everything is the same for each student he tests.
  - 4. To give a test properly, the instructor must:
    - a. Be sure the equipment and materials are set up or arranged as specified in the test and are in the required testing location.
    - b. Always read the instructions to each student in the same way and in the same tone of voice. Be sure each student understands the instructions.
    - c. Be sure that his demeanor--posture, facial expression, and attitude--is the same for each student.
    - d. Score each student on <u>all</u> items in the test. He must not assume that a student who does a few steps right can do all steps right.
    - e. Not give any student the benefit of a doubt. He must not assume that a student who leaves out a step during the test will remember it on the job.
    - f. Not correct the student if he makes an error during the test.
      Also, he must not tell him when he does something right.

- g. Explain what the student did wrong and how to do it right if he scores "NO-GO" on the test.
- h. Follow procedures prescribed for his unit for giving remedial training to "NO-GO" students.

#### CHECKLIST FOR TESTERS

	CHECKOUT	Q	N/Q	N/A	COMMENTS
'1.	Read instructions clearly and slowly to students to be tested.			-06:	ep end (memis)  men (MARKET LEARNING
2.	Observed complete performance of students being tested.				septi til minell Lightnings
3.	Avoided correcting errors of students being tested until test was finished.				
4.	Arranged testing conditions so students could not copy each other.				rasius da especial
5.	If any student received a "Not Qualified", assigned him to an assistant or peer instructor for remedial training.	350			

Lesson 5: Conducting a Class Using the Performance-Oriented Training System

Terminal The student will be able to conduct a class using the Objective: performance-oriented training system, to include a rehearsal of the instruction and the obtaining of needed training equipment.

Enabling 1. State the principles and phases of performance training. Objectives: (See Lesson 1)

Reference: TRADOC Pam 600-11, pp. 21-27

Activities: The instructor will:

 Review the basic principles and phases of performance-oriented training.

2. Direct the students to prepare to teach one of the lessons in Land Navigation TTP or in another TTP.

- 3. Give each student a copy of the Checklist which will be used, as a guide during the critique of the student's performance.
- 4. Allow the students a short time to prepare for the class.
- 5. Critique the student on his performance as an instructor.

#### The student will:

- 1. Prepare for the class as described in #2 above.
- 2. Teach the class for which he prepared.
- 3. Be taught by another student.
- 4. Observe other students teach a class and assist in the critique of the student-instructor's performance.

See supporting mat ials on pages 32-34.

It is suggested that the following comments be made to the squad leader.

One of your duties as a trainer will be to conduct performanceoriented instruction. The most effective way for you to learn how to conduct performance training is to "learn by doing." This lesson is designed to provide you practice in conducting performance training.

If you are planning to conduct instruction using a TTP, assemble the training equipment and materials listed for each lesson in the TTP. These resources, including the TEC lesson and equipment, are available through the company training NCO.

Before you begin training, it is a good idea to refresh your own skills in performing the various tasks in the TTP. Ask yourself if you can perform the required steps of each task. If you aren't sure, review the recommended training references for each task, especially the TEC lesson and the FM.

HANDOUTS: SEQUENCE OF INSTRUCTOR ACTIVITIES and CHECKLIST FOR INSTRUCTORS

These two handouts provide step by step guides for the instructor to use as he conducts performance-oriented training in a task. You should follow the steps outlined.

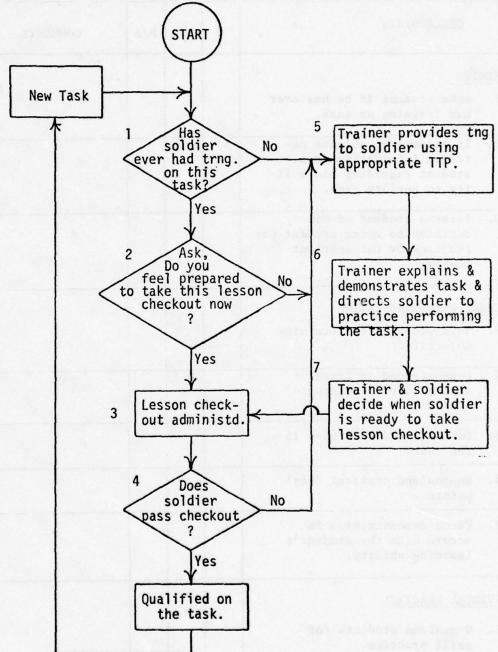
- a. Conduct SCREENING of the group. Note the steps on the checklist.
- b. After you have determined which men must receive training, find out which men would like to study on their own. Organize them in groups of twos or threes. Give them the TTPs and let them proceed on their own. They must come to you for the checkouts.
- c. Conduct the instruction for the rest of the group. Use any qualified men who know the task to assist you.

- d. Conduct the demonstration for the group you are instructing. Follow the checkpoints under  $\underline{\sf DEMONSTRATION}$  of the CHECKLIST FOR INSTRUCTORS.
- e. Organize the group you are instructing for skill practice.

  Follow the checkpoints under <u>INDIVIDUAL PRACTICE</u> of the

  CHECKLIST FOR INSTRUCTORS.
- f. Give check-outs to the group you are instructing and the self-study group as they are ready. Let the others continue to work. Follow the checkpoints under <a href="CHECKOUT">CHECKOUT</a> of the CHECKLIST FOR INSTRUCTORS.
- g. When a soldier is checked-out and is Qualified, let him go on to the next lesson in the TTP or use him to help out another soldier.
- h. When a soldier is checked-out and is Not Qualified, send him back for more practice under another Qualified soldier and have him come back to you for another check-out.

## SEQUENCE OF INSTRUCTOR ACTIVITIES START



#### CHECKLIST FOR INSTRUCTORS

	CHECKPOINTS	Q	N/Q	N/A	COMMENTS
CREEN	ING				4
1.	Asks student if he has ever had training on task.				
2.	If necessary, obtains de- tailed information from student regarding his abil- ity to perform task.				
3.	Informs student of his decision to refer student for training or for checkout testing.				
XPLAN	MATION/DEMONSTRATION	1911 1911 1911			
1.	Told students the training objective.				
2.	Demonstrated in location that allowed students to see well.			W.	
3.	Demonstrated each step in the task.				
4.	Emphasized critical (key) points.		200 200 2017		
5.	Paced demonstration in accord with the student's learning ability.				
NDIV	DUAL PRACTICE	-no	ent	800	
1.	Organized students for skill practice.				
2.	Prevented students from making errors.				
3.	Told students what to do when they needed help.	de			
4.	Avoided giving students unnecessary help.				

### CHECKLIST FOR INSTRUCTORS (Continued)

	CHECKPOINTS	Q	N/Q	N/A	COMMENTS
неск	COUT				Larent -
1.	Read instructions clearly and slowly to students to be tested.	143 228	v=28.	ed yt	
2.	Observed complete perform- ance of students being tested.		2319	J* 83	PROJECTORS CONTRACTORS
3.	Avoided correcting errors of students being tested until test was finished.		1950 1950	23.4	Toron Makes
4.	Arranged testing conditions so students could not copy each other.				
5.	If any student received a Not Qualified, assigned him to an assistant or peer in- structor for remedial instruction.	3: BA	300		ina Competino Mass Nace or no od 1985 no depont 1880/08/08

Lesson 6: Keeping a record of Performance Test Results

Terminal The student will be able to keep a detailed record of per-Objective: formance test results, to include making a report to his superior on the results.

Enabling 1. State the benefits of maintaining records of test Objective: results for individuals.

References: Soldier's Manual, FM 7-11B1 DRAFT, Infantryman, Skill Level 1.

Activities: The instructor will:

- Explain the reason for keeping detailed record of performance test results.
- Teach students to prepare Notebook entries of Performance Test Results.
- Teach students to prepare a periodic report of Performance Test Results to superiors.

The student will:

- 1. Learn to prepare a sample Notebook record of test results.
- Learn to prepare a periodic report of performance test results to superiors.

#### Some Information:

To be sure that each man has been checked out on his required skills, the squad leader should keep a record of all performance test results. This record will help him keep track of the progress of each soldier and tell him how proficient each one is. The number of tests is too great for any one person to keep the results in his head. That is why a written record should be kept.

HANDOUT NOTEBOOK PAGE ENTRIES FOR JOHNSON AND OLSON

For teaching purposes we will work with the llB task test. It is suitable for use in the squad leader's notebook. The record of proficiency for each soldier for each task can be put on a single page. The form

TASKS				TASKS		
	Start	Q	NQ	IASKS	Start	10 100
	Date	Date	Date		Date	Q NQ
( )	Day Mo	Day Mo	Day Mo	, ,		Date Date
Surv.& Intell.			1 1	( )	Day Mo	Day McDay Mo
1. Est. range			1	Surv.& Intell.	;	11111
2. Process enemy				1. Est. range	1	11111
personnel		1 1		2. Process enemy		
(5/6/76)		1 1		personnel		
ATT S AD Minor		1.1_		( )		
AT & AP Mines	10 5	65	1 1	AT & AP Mines		
1. M16AP	2	11	126	1. M16AP	1	1 1 1 1
2. M21AT	36	19 16	126	2. M21AT	1	1 1 1 1 1
	1			( )	į	
Chemical Casualty		1 1		Chamical Canalty	1	
1. Put on mask		1 1		Chemical Casualty		
2. Treat chemical		1 1	111	1. Put on mask	1	
casualty			111	2. Treat chemical	1	
( )		1		casualty		
Franch / Dogwood Crid	1	1 1	1 1 1		) [	
Encrypt/Decrypt Grid		1 1	111	Encrypt/Decrypt Grid	-	
Coordinates	1			Coordinates ·	1	
1. Use the KAL 61		1	111	1. Use the KAL 61		1 1 1 1
2. Authenticate				2. Authenticate	1	
( )				( )	1	
Land Navigation			105	Land Navigation		1 1 1 1 1
1. Magnetic azimuth	105	1			1	
2. Grid coordinates -	55	85		1. Magnetic azimuth		
3. Grid azimuth —	. 1.		115	2. Grid coordinates	1	1 1 1 1
4. Orient map	115	10 5	00	3. Grid azimuth	1	
	95	10	17 7	4. Orient map		
5. Convert mag to grid			1 1 1	<ol><li>Convert mag to gri</li></ol>	d	
& grid to mag	1			& grid to mag	1	
6. Back azimuth		1		6. Back azimuth		
7. Elevation			1 1 1	7. Elevation		1 1 1 1
3. Topo features		1		8. Topo features		
<ol> <li>Determine location</li> </ol>	ĺ	1	1 1 1	9. Determine location	. 1	1 . 1 1 1
10.Measure distance	1	1		10.Measure distance		1 1 1 1
11.Pace count				11. Pace count		
12.Day navigation	1			12.Day navigation	1	1 1 1 1
13. Night navigation						
( )			1 1 1	13. Night navigation		1 1 1
Tank Hunter Killer				, , , , , , , , ,		1 1 1 1
1. Organize HTR-KLR		1	1	Tank Hunter Killer		1 1 1 1 1
			1	1. Organize HTR-KLR		
team			1 1 1	team		
2. Employ HTR-KLR		1	1 1 1	2. Employ HTR-KLR		
team		1		team		
( )				( )	1	
Performance Training				Performance Training		
1. Conduct Perf.Trn			1 1 1	1. Conduct Perf. Trn	1	
Class		1	1	Class		
					,	!
	^					
Name Ohnigen	She	OTR		Name CLSON, Grade F3 SSN	John	VH-
Grade # 3 SSN	\$1-21	-54	7	Grade 5 3 SSN	215 -4	2-6412
Unit 157 PL A	C - 3E		+	Unit /5/ P/	4 1	- 671-
MOS (1 B)	Psn: Ril	12	_		Pon: ET	· · · · · · · · · · · · · · · · · · ·
MOS 11 B1 Duty	su. tak	clus		MOS/13/ Duty	rsn:	manuer
	U					

can easily be reproduced in your company. The start date is the date the soldier starts training in the task (day/number of month). The date a soldier becomes qualified in a task is entered in the Q column (day/ number of month). If a soldier is tested or evaluated but is still not qualified, the date is entered in the NQ column. If a soldier has not been avaluated, no entry is made. This handout contains the record of two soldiers. Assume they are new to your squad. Johnson, an E-3, has only been evaluated by a previous squad leader in a few tasks and the entries have been made. You have no other records on which tasks he can or cannot do. Let's see what we know about him. Look at AT & AP mines. You see Johnson began instruction on the M16AP on 6/5 and was checked out as qualified on the same date. About a month later (on 3/6) he began instruction on the M21AT mine. He tried the check out the day he began training but failed it. Later, on the 5th of the month he passed. Since he completed all lessons comprising the TTP on mines, the date he completed the last lesson successfully is written in the parentheses opposite the TTP title. Thus, 5/6 is written in; it shows Johnson is qualified on the TTP.

Johnson has started 4 lessons in Land Navigation. He is still NQ on the first one, Q on the second, NQ on the thrid, and Q on the fourth.

Note he was NQ on the fourth for one day before he was able to pass the checkout.

Now let's turn to Olson. Nothing is written on his form except his identifying information. But suppose we have conducted some training of Olson and we want to record it. Here's the information we have:

He began the lesson Estimate Range on 8/3. Not passing the checkout immediately, he finally did so on 15/3. Record this information. Do you put anything in the NQ column? (Instr.Note - answer: Yes - the first date he failed which is obviously 8/3)

Olson successfully completed both Chemical Casualty lessons. He began training on 5/3 and finished on 5/3. What do you now record?

(Instr.Note - answers: Q for both on 5/3 and also for the TTP on 5/3).

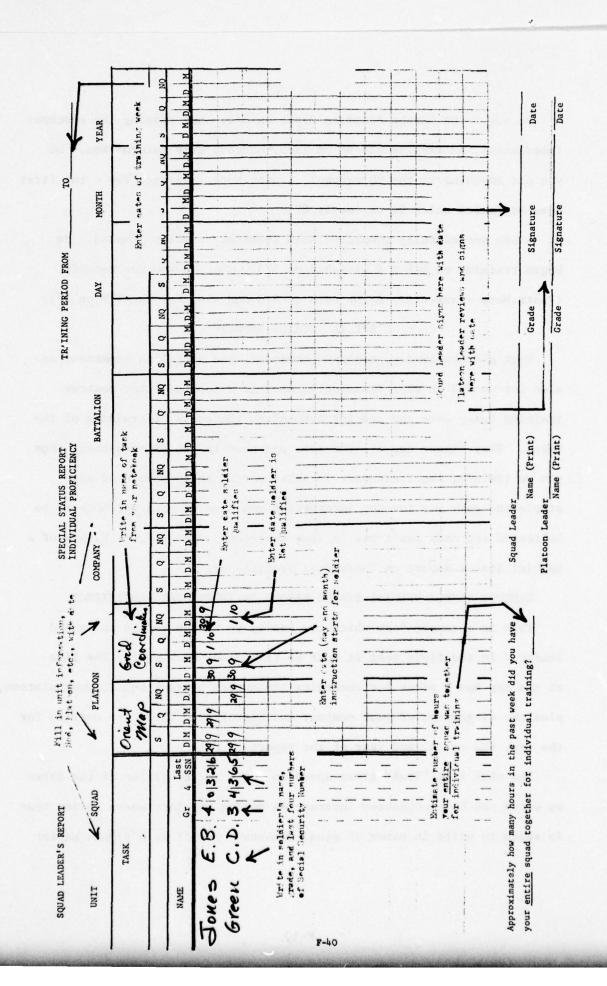
#### SPECIAL STATUS REPORTS

Your platoon leader, company commander, and battalion commander are also interested in what training is needed. Of course, they observe training being done and see for themselves the state of training of the units. They cannot see all the men, and need to get an assessment from you on training requirements. In other words, there should be some simple and easy way for the information you have in your notebook to be collected and made available to your superiors. One way, is by use of a Special Status Report on Individual Proficiency.

HANDOUT SAMPLE SPECIAL STATUS REPORT ON INDIVIDUAL PROFICIENCY

This is a sample form which can easily be filled out by the squad leader. In the field test it must be filled out each week. The line at the top has a place for recording the number of your squad, your platoon, plus the disgnation of your company and battalion. There are entries for the day, the month, and year of the report.

The next line "Task" gives space to write in the titles of the tasks on which you have conducted instruction during the last week, Below that is space to write in names of squad members. Now it is a simple matter



to write in the day and month in which squad members start training, become Q, or are found NQ in the lessons or tasks listed above.

On this sample form it can be seen that Jones started Orient A Map on 29 Sept and qualified on it the same date. Green started the same lesson on the same day but did not qualify. Thus, his date of NQ is shown as 29 Sept. Both have started on the Grid Coordinates lesson and the results are shown. The Special Status Report form covers the entries for one week only. Once you copy a date out of your notebook form, circle it in your notebook so you will not copy the date again in preparing the following week's form.

At the bottom of the form is a place for the squad leader's signature and date. The squad leaders turn their reports in to the platoon leader who reviews them and discusses the training progress of individuals with the squad leader. The platoon leader then signs and forwards to the company commander. At the Company level the reports are reviewed by the Co CO.

Beginning in October, there will be a field test of a project which is designed to improve the skills of the individual soldier. The instruction is to be given by the squad leader. He will be provided Task Training Packages covering each of the tasks that have priority for individual training. These TTPs will aid him in instructing the men in his squad. Three rifle companies will participate. In one company, both internal and external details and events that interfere with training will be carefully controlled. In another company, only the internal details and events will be controlled. In a third company, details and events will be conducted as they are now. In all companies, the emphasis will be on doing

things by squad, and this is for the purpose of permitting the squad leader to train his own men.

HANDOUT SEQUENCE OF INSTRUCTOR ACTIVITIES DISCUSS ALONG THE FOLLOWING LINES (SEE PAGE 32 ISSUED PREVIOUSLY)

You already have a Task Training Package on Land Navigation. How do you go about screening, training and evaluating the soldiers in your squad? Following this chart, the first step is to ask a soldier, "Have you ever had training on this task?" If NO, mark him on the Notebook Page as NQ with a day and month entry. If he says YES, then ask him "Do you feel prepared to take this lesson checkout now?"

Show him the test. If he answers NO, mark him NQ on the Notebook Page with the date. If he says he is prepared to take the test, give it to him. If he passes or fails, mark him on your Notebook Page accordingly.

The next step is conducting the training. Organize your men for performance training as you have been taught in this course. For those who can, let them use the training packages for self learning. Teach the others yourself.

The next step is the checkout. When you are fairly certain that a soldier has acquired the skills and is ready for a checkout, give it to him. Let the others continue to work. Be sure the soldier passes on his own without any help or coaching. If he is still uncertain, send him back for more practice.

You will be required to keep a record of each soldier's progress on the Special Tasks on your Notebook Pages. As a soldier is Q or NQ in a task, enter the day and the number of the month in the appropriate column. You must also prepare the weekly Special Status Report referred to previously.

#### HANDOUT MOS 11C MATERIAL

Notebook Pages	form			
TASKS	Start	Q HQ		<b>t</b>
	Day Mo	Day Mo Day	10	
	Start Date Day Mo ) sss	Q HQ Date Date Day Mo Day N	Fwd Observer  1. Azimuths-M-2 compass 2. Orient map - M-2 compass 3. Lateral distance 4. Target-grid coord & call for fire 5. Target-known pt.& call for fire 6. Target-polar plot & call for fire 7. Adjust-bracketing 8. Call for/adjust-bracke 9. Danger close: grid coo & call for fire 10. Danger close: Known p & call for fire 11. Danger close: adjust/creeping 12. Danger close: call fo & adjust/creeping  Boresight Mortar ( 1. Boresight 8lmm mortar  Surv.& Intell. ( 1. Est.range 2. Process enemy personnel  AT & AP Mines ( 1. Ml6AP 2. M21AT	t rd t
Encrypt/Decrypt Grid( Coordinates  1. Use the KAL 61 2. Authenticate  Land Navigation () 1. Magnetic azimuth 2. Grid coordinates 3. Grid azimuth 4. Orient map 5. Convert mag to grid & grid to mag 6. Back azimuth 7. Elevation 8. Topo features 9. Determine location 10.Measure distance 11. Pace count 12. Day navigation 13. Night navigation  Performance Training ( 1. Conduct Perf. Trn			2. Treat chemical casualty  Encrypt/Decrypt Grid(Coordinates  1. Use the KAL 61  2. Authenticate  Land Navigation (1. Magnetic azimuth 2. Grid coordinates  3. Grid azimuth 4. Orient map  5. Convert mag to grid & grid to mag  6. Back azimuth 7. Elevation  8. Topo features  9. Determine location  10. Measure distance  11. Pace count  12. Day navigation  13. Night navigation  Performance Training (1. Coordinate Borf Training (1.)	
1. Conduct Perf.Trn Class	4.1	, , ,	1. Conduct Perf.Trn Class	111111

Name
Grade SSN
Unit
MOS Duty Psn:

| Name | | Grade | SSN | Unit | | MOS | Duty | Psn: | |

#### APPENDIX G

#### ATTITUDE SURVEY AND QUESTIONNAIRE FORMS

#### IETS Field Test Individual Survey

		Individual Survey		
			(Da	te)
Name	e:			
	Last	First	MI	
Soc	ial Security No	528		
Uni	t:			
	Squad	Platoon Compan	7 Batt	alion
aboı	Check one answer fout the training you ha	r each question which is classes received during this Fi	osest to the wa	y you feel
1.		have learned will help you in your present assignment?	Some	average
2.	Where did you get th perform the tasks:	e <u>most</u> help in learning to	Platoo Squad Team I Anothe	Leader dr er Soldier
3.	How difficult did yo	u find the check-outs?		ifficult at difficult se
4.	How much time did th demonstrating how to	e instructor spend in perform the task?	Too mu About Not en	
5.		how often were you given e before taking a check-out	Always Quite Seldon Never	often
6.	Were you allowed to you were ready?	take the check-outs when	Always Most of Someti	f the time
7.		t a chance to help another and tell him what he was ?	All the Quite Seldon Never	

8.	In general, in what size group did you learn?	Platoon Squad In a small group I worked alone
9.	How close were the check-outs to what you were taught?	The same Very close Not very close Entirely different
10.	How often was your training interrupted because of details, formations, etc.?	All the time Quite often Seldom Never
11.	How much did you learn that you didn't know before?	Quite a lot Some Not much Nothing

## Pre-Field Test Survey Squad Leaders

	b. B
	c. C
2.	What is your present platoon
	a. lst
	b. 2nd
	c. 3rd
	d. 4th (Mortar)
3.	What is your present grade ?
	a. E-3
	b. E-4
	c. E-5
	d. E-6
4.	What is your present job ?

Team leader

c. Squad leader

d. Platoon sergeant

b. Assistant squad leader

1. What is your present company ?

- 5. What is your primary MOS ?
  - a. 11B
  - ь. 110
- 6. For how many months have you been a squad leader ? (count time in your present unit and in previous units).
  - a. Under 3 months
  - b. Between 3 and 6 months
  - c. Between 6 months and 12 months
  - d. Over 12 months
  - e. I am not a squad leader
- 7. Have you attended any special NCO or leader training program within the past year, for example, NCO Academy, Instructor Training Course, Basic Leader Course, etc. ?
  - a. Yes
  - b. No

This questionnaire asks questions about <u>teaching</u> <u>individual</u> <u>combat skills</u> in your <u>last</u> unit ... the unit you were in <u>before</u> you came to 6/31.

By <u>teaching</u> we mean times when you or another NCO tried to teach someone how to do something. It could involve the NCO and one or two men or the NCO and a class of 30 men.

By <u>individual combat skills</u> we mean such things as how to orient a map, how to clean a weapon, how to apply a tourniquet, how to make a range card, how to build a defensive position.

- 8. Who most often taught the man their individual combat skills in your last unit ?
  - a. The men's team leaders
  - b. The men's squad leader
  - c. The men's platoon sergeant or platoon leader
  - d. Other NCOs from the men's platoon
  - e. NCOs and officers from outside the men's platoon
- 9. How often did you teach men their individual combat skills in your last unit?
  - a. About once a day I did some teaching
  - b. About once a week I did some teaching
  - c. About once a month I did some teaching
  - d. I taught men less often than once a month
  - e. I never did any teaching in my last unit

IF YOU CHECKED  $\,$  a,  $\,$  b, or  $\,$  c, to Question  $\,$  # 9, answer all the questions that follow.

IF YOU CHECKED d, or e, to Question # 9, skip to question # 19.

- 10. What materials did you most frequently use as a reference when you taught your men in your last unit?
  - a. FMs or TMs
  - b. Training circulars
  - c. Lesson plans prepared by others
  - d. Soldier's Manual
  - c. Other documents

- 11. How often in your last unit did you screen your men before you taught them, to find out which men needed training and which men did not need training ?
  - a. Always
  - b. Usually
  - c. About half the time
  - d. Seldom
  - e. Never
- 12. If you sometimes did screen your men, how did you usually do it ?
  - a. Asked the men if they had previous training on the task
  - b. Asked the men questions about the task to find out what they knew about it.
  - c. Required the men to perform part of the task
  - d. Required the men to perform the whole task
  - e. I never did screen my men before teaching them
- 13. Teaching men usually involves spending some time on giving them an explanation and demonstration and some time supervising them while they practice. How much time in your last unit did you normally spend on the explanation and demonstration?
  - a. Over 90% of the time on explanation/demonstration, rest of the time supervising their practice.
  - b. Between 60% and 90% of the time on explanation/demonstration, rest of the time supervising their practice.
  - c. Between 40% and 60% of the time on explanation/demonstration, rest of the time supervising their practice.
  - d. Between 10% and 40% of the time on explanation/demonstration, rest of the time supervising their practice
  - e. Under 10% of the time on explanation/demonstration, rest of the time supervising their practice.

- 14. How often in your last unit did you test your men after training was completed to see if they could do on their own, the things that you tried to teach them?
  - a. Always
  - b. Usually
  - c. About half the time
  - d. Seldom
  - e. Never
- 15. If you sometime did test your men after training was completed, how did you usually do it ?
  - a. Asked the men questions about the task
  - b. Required the men to perform part of the task
  - c. Required the men to perform the whole task.
  - d. I never did test my men after teaching them.
- 16. In your last unit, who decided if a man was, or was not qualified to perform a military task?
  - a. His squad leader
  - b. His platoon sergeant or platoon leader
  - c. Other NCOs or Officers in the company
  - d. His company commander
- 17. In your last unit, did you personally keep any record which showed which of your men were qualified and which men were not qualified to perform military tasks?
  - a. Yes, on PT, weapons, and other subjects
  - b. Yes, on PT and weapons
  - c. Yes, on PT
  - d. Yes, on weapons
  - e. I kept no records on my men's qualifications

- 18. How many of your men were <u>normally present</u> for training in your last unit when you were scheduled to teach your men individual combat skill?
  - a. All of them
  - b. About three-fourths of them
  - c. About half-of them
  - d. About one-fourth of them
  - e. Less than one-fourth of them
- 19. It has been suggested that squad leaders should have the prime responsibility for teaching the men in their squad their individual combat skills. How do you feel about this idea?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 20. It has been suggested that before a squad leader starts to teach his men, he screens them to find out which men need the training and which men do not need the training. How do you feel about this idea?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea

- 21. It has been suggested that when squad leaders teach a class, they should spend more time on letting their men practice and supervising their practice and less time on giving lengthy explanations and demonstrations. How do you feel about this idea?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 22. It has been suggested that after practice has been completed, squad leaders should test their men to see if they can do, on their own, the things that were taught in the class. How do you feel about this idea ?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 23. It has been suggested that squad leaders keep a personal record which shows which of their men are qualified and which of their man are not qualified to perform individual combat tasks. How do you feel about this idea ?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea

### Post-Field Test Survey

# Squad Leaders

1.	What is your present company ?	
	a. A	
	b. B	
	c. C	
2.	What is your present platoon ?	li bar bank bingentin she il supe les tra shesia test th
	term lessio off of magest over a	
	b. 2nd	
	c. 3rd	
	d. 4th (Mortar)	
3.	What is your present grade ?	
	a. E-3	
	c. E-5	
	d. E-6	
	e. Other	
4.	What is your present job ?	

Team leader

c. Squad leader

Other

Assistant squad leader

Platoon sergeant

- 5. What is your primary MOS ?
  - a. 11B
  - b. 11C
  - c. Other
- 6. For how many months have you been a squad leader ? (count time in your present unit and in previous units).
  - a. Under 3 months
  - b. Between 3 and 6 months
  - c. Between 6 months and 12 months
  - d. Over 12 months
  - e. I am not a squad leader
- 7. Have you attended any special NCO or leader training program within the past year? For example, NCO Academy, Instructor Training Course, Basic Leader Course, etc?
  - a. Yes
  - b. No

This questionnaire asks questions about <u>teaching individual combat</u> skills in your present unit.

By <u>teaching</u> we mean times when you tried to teach someone how to do something. It could involve you and one or two men or you and your entire squad.

By <u>individual combat skills</u> we mean such things as how to orient a map, how to clean a weapon, how to apply a tourniquet, how to make a range card, how to build a defensive position.

- 8. Who most often taught the men in your squad their individual combat skills during the past month?
  - a. The men's team leaders
  - b. The men's squad leader
  - c. The men's platoon sergeant or platoon leader
  - d. Other NCOs from the men's platoon
  - e. NCOs and officers from outside the men's platoon
- 9. How often did you teach men their individual combat skills in your present unit during the past month?
  - a. About once a day I did some teaching
  - b. About two or three times a week I did some teaching
  - c. About once a week I did some teaching
  - d. About two or three times a month I did some teaching
  - e. I taught less often than two or three times a month

IF YOU CHECKED a, b, c, or d, to Question # 9, answer all the questions that follow

IF YOU CHECKED e, to Question # 9, skip to question # 42.

- 10. What materials did you most frequently use as a reference when you taught your men during the past month?
  - a. FMs or TMs
  - b. Training circulars
  - c. Lesson plans prepared by others
  - d. Soldier's Manual
  - e. Lesson Booklets in Task Training Packages
- 11. How often did you screen your men before you taught them, to find out which men needed training and which men did not need training during the past month?
  - a. Always
  - b. Usually
  - c. About half the time
  - d. Seldom
  - e. Never
- 12. If you sometimes did screen your men, how did you usually do it ?
  - a. Asked the men if they had previous training on the task
  - b. Asked the men questions about the task to find out what they knew about it
  - c. Required the men to perform part of the task
  - d. Required the men to perform the whole task
  - e. I never did screen my men before teaching them

13. Teaching men usually involves spending some time on giving them an explanation and demonstration and some time supervising them while they practice.

How much time do you normally spend on the explanation and demonstration when you taught during the past month ?

- a. Over 90% of the time on explanation/demonstration-- the rest of the time on supervising their practice
- b. Between 60% and 90% of the time on explanation/demonstration the rest of the time on supervising their practice
- c. Between 40% and 60% of the time on explanation/demonstration the rest of the time on supervising their practice
- d. Between 10% and 40% of the time on explanation/demonstration the rest of the time on supervising their practice
- e. Under 10% of the time on explanation/demonstration-- the rest of the time on supervising their practice
- 14. How often did you test (or check-out) your men after training was completed to see if they could do on their own, the things that you tried to teach them during the past month?
  - a. Always
  - b. Usually
  - c. About half the time
  - d. Seldom
  - e. Never
- 15. If you sometimes did test (check-out) your men after training was completed, how did you usually do it ?
  - a. Asked the men questions about the task
  - b. Required the men to perform part of the task
  - c. Required the men to perform the whole task
  - d. I never did test my men after teaching them

- 16. Who decided if a man was or was not qualified to perform a military task during the past month?
  - a. His squad leader
  - b. His platoon sergeant or platoon leader
  - c. Other NCOs or officers in the company
  - d. His company commander
  - e. No one
- 17. Did you personnaly keep any record which showed which of your men were qualified and which men were not qualified to perform military tasks during the past month?
  - a. Yes
  - b. No
- 18. How many of your men were <u>normally present</u> for training during the past month when you were teaching them individual combat skill?
  - a. All of them
  - b. About three-fourths of them
  - c. About half-of them
  - d. About one-fourth of them
  - e. Less than one fourth of them
- 19. How often did you have a problem because of the need to screen some men, train other men and test (check-out) other men, all at the same time?
  - a. Always
  - b. Often
  - c. About half the time
  - d. Seldom
  - e. Never

- 20. How often did you have someone in your squad act as your assistant instructor ... work with some of the men while you worked with other men?
  - a. Frequently
  - b. Often
  - c. Sometimes
  - d. Seldom
  - e. Never
- 21. In the Field Test that was just completed, squad leaders were given Task Training Packages (lesson booklets) to help them plan and conduct individual combat training. How often did you use these booklets?
  - a. I always used them
  - b. I usually used them
  - c. I used them about half the time
  - d. I seldom used them
  - e. I never used them
- 22. How do the lesson booklets compare with the FMs and TMs when it comes to helping a squad leader prepare and conduct individual combat training?
  - a. Much better than FMs and TMs
  - b. A little better than FMs and TMs
  - c. About as good as FMs and TMs
  - d. A little poorer than FMs and TMs
  - e. Much poorer than FMs and TMs

- 23. How do you feel about the language used in the lesson booklets ?
  - a. Very easy to understand
  - b. Fairly easy to understand
  - c. About average
  - d. Fairly hard to understand
  - e. Very hard to understand
- 24. How do you feel about the number of pictures used in the lesson booklets?
  - a. Need many more pictures
  - b. Need a few more pictures
  - c. The number of pictures is about right
  - d. You can eliminate some pictures
  - e. You can eliminate most of the pictures
- 25. Each lesson booklet had sections which listed the steps a person takes to perform the task. This section was called Actions Taken To Perform The Task. How complete was this section ?
  - a. Very complete. No important steps were missing
  - b. Fairly complete. A few important steps were missing
  - c. About average. Some important steps were missing
  - d. Fairly incomplete. Many important steps were missing
  - e. Very incomplete. Most important steps were missing

- 26. How accurate were the lesson booklets when it came to describing how to perform the task?
  - a. Very accurate. There were very few errors
  - b. Fairly accurate. There were a few errors
  - c. About average. There were some errors
  - d. Fairly inaccurate. There were many errors
  - e. Very inaccurate. There were very many errors
- 27. Each lesson booklet had a section on how to teach the task. This section was called Guide For Instructors. How helpful was this section ?
  - a. It was a great deal of help
  - b. It was of considerable help
  - c. It was of some help
  - d. It was of little help
  - e. It was of very little help
- 28. Each lesson booklet had a section on how to conduct the check-out. (In some lessons, this was in a special booklet) How helpful was this section?
  - a. It was a great deal of help
  - b. It was of considerable help
  - c. It was of some help
  - d. It was of little help
  - e. It was of very little help
- 29. Some of the lesson booklets require that you use special equipment such as maps, compasses, mines, etc. Was this equipment available when you needed it?
  - a. Always available
  - b. Usually available
  - c. Available about half the time
  - d. Seldom available
  - e. Never available

- 30. 'Some of the tasks covered by lesson booklets can be taught in the barracks or company area. How adequate were the facilities in the barracks and company area for the teaching of these tasks?
  - a. Very good
  - b. Fairly good
  - c. About average
  - d. Fairly poor
  - e. Very poor
- 31. Some of the lesson booklets require that you use special sites in the field. This was especially true of lessons in the Land Navigation TTP and the Forward Observer TTP. Were these sites available when you needed them?
  - a. Always available
  - b. Usually available
  - c. Available about half-the time
  - d. Seldom available
  - e. Never available
- 32. How often did you give a lesson booklet or an entire Task Training Package to someone in your squad so that he could study the material on his own?
  - a. Often
  - b. Frequently
  - c. Sometimes
  - d. Seldom
  - e. Never

Questions # 33 through # 40 are special

Mark your answers on the answer sheet

--IN ADDITION --

If you chose alternative  $\underline{c}$ , print your suggestions on this page in the space provided

- 33. How do you feel about the <u>Land Navigation</u> Task Training Package (13 lesson booklets)?
  - a. I never used it
  - b. I used it and it is ok the way it is
  - c. I used it and it can be improved by \_\_\_\_\_
- 34. How do you feel about the <u>Boresighting the Mortar</u> Task Training Package (1 lesson booklet)?
  - a. I never used it
  - b. I used it and it is ok the way it is
  - c. I used it and it can be improved by \_\_\_\_\_

35.	How do you feel about the <u>Forward Observer</u> Task Training Package (12 lesson booklets) ?	3
	a. I never used it	
	b. I used it and it is ok the way it is	
	c. I used it and it can be improved by	-
		_
36.	How do you feel about the <u>Anti-Personnel and Anti-Tank Mines</u> Task Training Package (2 lesson booklets) ?	
	a. I never used it	
	b. I used it and it is ok the way it is	
	c. I used it and it can be improved by	
37.	How do you feel about the <u>Masking and Chemical Agent Casualty</u> Training Package (2 lesson booklets)?	ask
	a. I never used it	
	b. I used it and it is ok the way it is	
	c. I used it and it can be improved by	

38.	How do you feel about the <u>Surveillance &amp; Intelligence</u> Task Training (2 lesson booklets) ?
	a. I never used it
	b. I used it and it is ok the way it is
	c. I used it and it can be improved by
39.	How do you feel about the Encode/Decode/Authenticate Grid Coordinates Task Training Package ( 2 lesson booklets ) ?
	a. I never used it
	b. I used it and it is ok the way it is
	c. I used it and it can be improved by
40.	How do you feel about the <u>Hunter-Killer Team Task Training Package</u> (2 lesson booklets)?
	a. I never used it
	b. I used it and it is ok the way it is
	c. I used it and it can be improved by
41.	How do you feel about the <u>Performance Oriented Training</u> Task Training Package (1 lesson booklet) ?
	a. I never used it
	b. I used it and it is ok the way it is
	c. I used it and it can be improved by

- 42. In the Field Test that was just completed, squad leaders were required to use the lesson booklets in Task Training Packages (TTPs) as their main reference when conducting individual combat training. How do you feel about requiring squad leaders to use the lesson booklet as their main reference?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 43. In the Field Test that was just completed, squad leaders were given the prime responsibility for conducting individual combat training. How do you feel about giving squad leaders this responsibility?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 44. In the Field Test that was just completed, squad leaders were required to screen their men before starting to teach them, to find out which men needed the training and which men did not need the training. How do you feel about requiring squad leaders to screen their men?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea

- 45. In the Field Test that was just completed, squad leaders were required to spend more time on letting their men practice and supervising their practice and less time on giving their men lengthy explanations and demonstrations. How do you feel about requiring squad leaders to spend more time on supervised practice and less time on explanations/demonstrations?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 46. In the Field Test that was just completed, squad leaders were required to follow supervised practice with a test or check-out to see if his men could do on their own, the things that he had tried to teach them. How do you feel about requiring squad leaders to test or check-out their men after they have had a chance to practice?
  - a. It's an axcellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea
- 47. In the Field Test that was just completed, squad leaders were required to keep a personal record which showed which of their men were qualified and which of their men were not qualified to perform individual combat tasks. How do you feel about requiring squad leaders to keep such records?
  - a. It's an excellent idea
  - b. It's a good idea
  - c. It's a fair idea
  - d. It's a poor idea
  - e. It's a very poor idea

### IETS

### Pre-Field Test

Platoon Leader; Platoon Sergeant, and Training NCO Survey

			(date)
Nan	ne:Last	First	MI
Soc	cial Security No.	er insitul de mendone	agent on agent on abuse of the
	Lt:		
OIL	Duty Assignment	Company	Battalion
	Check one answer for each qu		s and a manel con tender of the
1.	What materials do you most fuse as a reference when prep		
	aFMs bTMs cLesson Plans dSoldier's Manual eTask Training Packag fOther	es	animani on abinimat
2.			to screen their men before ich men don't need the trainin
	a. Necessary: a very go b. Sometimes helpful c. Not worth the effort		
3.	How do you feel about requir completing individual traini the task?		to check-out each man after the man learned how to perfor
	a. Necessary: a very go b. Sometimes helpful c. Not worth the effort		
4.	How do you feel about requir men's qualifications or lack		
	a. Necessary: a very go b. Sometimes helpful c. Not worth the effort		
5.	Who most frequently conducts	individual instru	uction of men in squads?
	aTheir squad leader bTheir platoon sergea cOther NCOs in the un		
6.	Who decides if a man is qual	ified or not qual:	lfied to perform a task?
	a. His team leader b. His squad leader c. His platoon sergeant d. The company commande		

7.	Most of the tasks listed in the Soldier's Manual are need-to-perform tasks	agree completely agree moderately undecided disagree moderately disagree completely
8.	Once a soldier has Qualified in an individual task, he should be used to help another soldier who is having trouble.	agree completely agree moderately undecided disagree moderately disagree completely
9.	Soldiers can learn a lot themselves by helping others to learn	agree completely agree moderately undecided disagree moderately disagree completely
10.	The standards for becoming Qualified in individual tasks in the Soldier's Manual are too high and should be lowered so that more soldiers can qualify	agree completely agree moderately undecided disagree moderately disagree completely
11.	The Squad Leader's records of each soldier's indi- vidual qualification on tasks keeps him informed of the training status of each individual in his squad	agree completely agree moderately undecided disagree moderately disagree completely
12.	The reports submitted by Squad Leaders of each soldier's qualification in individual tasks provides me and my superiors with reliable information on the status of training in the squads.	agree completely agree moderately undecided disagree moderately

Appret Northwest and and are are

## IETS

### Post-Field Test

Platoon Leader, Platoon Sergeant, and Training NCO Survey

			(date)
Nan			
	Last	First	MI
Soc	ial Security No		
Uni	t:	a longor by	
	Duty Assignment	Company	Battalion
	Check one answer for each question	ting ods at w	
1.	What materials do you most frequento use as a reference when prepari	tly use or direct ng to give individ	your squad leaders dual training?
	aFMs		
	bTMs		
	cLesson Plans		
	dSoldier's Manual		
	eTask Training Packages		
	fOther		
2.	How do you feel about requiring sq they start individual training to training?		
	aNecessary: a very good ide	a	
	bSometimes helpful		
	cNot worth the effort		
3.	How do you feel about requiring sq completing individual training to perform the task?		
	aNecessary: a very good ide	a	
	bSometimes helpful		
	C. Not worth the effort		

4.	How do you feel about requiring squad leaders to keep a record of their men's qualifications or lack of qualification to perform military tasks
	aNecessary: a very good idea
	bSometimes helpful
	cNot worth the effort.
5.	Who most frequently conducts individual instruction of men in squads?
	aTheir squad leader
	bTheir platoon sergeant
	cOther NCOs in the unit
6.	Who decides if a man is qualified or not qualified to perform a task?
	aHis team leader
	bHis squad leader
	cHis platoon sergeant or platoon leader
	dThe company commander
7.	Most of the tasks listed in the Soldier's  Manual are need-to-perform tasks.  Manual are need-to-perform tasks.
8.	Once a soldier has Qualified in an agree completely individual task, he should be used to agree moderately undecided trouble disagree moderately disagree completely
9.	Soldiers can learn a lot themselves by agree completely helping others to learn agree moderately undecided disagree moderately disagree completely

10.	The standards for becoming Qualified in individual tasks in the Soldier's Manual are too high and should be lowered so that more soldiers can qualify.	agree completely agree moderately undecided disagree moderately disagree completely
11.	The Squad Leader's records of each soldier's individual qualification on tasks keeps him informed of the training status of each individual in his squad.	agree completely agree moderately undecided disagree moderately disagree completely
12.	The reports submitted by Squad Leaders of each soldier's qualification in individual tasks provides me and my superiors with reliable information on the status of training in the squads.	agree completely agree moderately undecided disagree moderately disagree completely
13.	How helpful were the Task Training Packages (Tguiding the conduct of individual training?	TTPs) in general, in
	aNot very helpful	
	bAbout as good as the training material	l usually available
	cBetter than the usual training materia	als
	dClear, convenient, and very helpful	
14.	How helpful were the TTPs when it came to prove conduct individual trainingthe section title	viding guidance on how to led <u>Guide For Instructors?</u>
	aVery helpful	
	bModerately helpful	
	cOf little help	
15.	How could the Task Training Packages be improved helpful?	ved to make them more
		A A A A A A A A A A A A A A A A A A A

16.	equipm	f the Task Training Packages require the use of particular ent or a special training area. Was this support readily ble to the squad leaders?
	a	_Yes, always
	b	Yes, most of the time
	c	Yes, sometimes
	d	Yes, seldom
	e	_No, never

# INTERVIEW GUIDE IETS Field Test

For Interview of <u>Company Commanders</u>, <u>Company and Battalion Project Officers</u>, and Battalion Commanders

Areas to be covered: Turbulence control Task Training Packages

Training Resources Qualification Check-outs The Recording System

The Reporting System Quality Control Checks on System Training Support

### 1. Turbulence Control

What are the relative advantages and disadvantages of reducing turbulence to achieve better individual training?

What are the most effective methods?

Can you list in detail the actions you have taken to control turbulence?

Which of these worked completely? Which did not and what were the reasons they did not work completely?

Did the subordinate units take any further action on their own to control turbulence and keep the squads together for training?

Do you have any further recommendations?

### 2. Task Training Packages

Do these packages provide the squad leader the structure by which he can instruct and check-out the members of his squad in the individual tasks required for their job?

What would you add to the packages? Delete? What are your recommendations re format, number available, and ease of handling?

Are the training resources available sufficient to match the requirements of the Task Training Packages? i.e., equipment, TEC tapes, training areas, FMs?

What do you consider the advantages and disadvantages of the screening process employed before a Squad Leader starts training his men in a TTP?

### 3. Qualification Check-Outs

Do the Qualification Check-outs provide the soldier and the squad leader an accurate assessment of the soldier's ability to perform a task? If not, what is needed?

Have individual standards improved as a result? Have instructional standards improved?

### 4. The Recording System

What is your opinion of the Squad Leader's ability to record the required information in his notebook? Do you think this recording helps him in determining the training needs of his men?

Do you think his recording is factual or is it a perfunctory compliance with "what is wanted"?

### 5. The Reporting System

What is the value to you of the reporting system on individual task performance?

What changes, if any, do you have on the functional groupings of tasks?

How often do you think the report should be submitted by the Squad

Leaders?

Do you think the report is of value to your superiors? How have you used the information that is in the report?

What is your recommendation of extending this reporting system to additional MOSs?

### 6. Quality Control

Have you had the opportunity to observe check-out testing, or to give some spot check tests on your own to determine if soldiers who are reported as Qualified in a task are actually qualified? Do you have a systematic method in your unit for making Quality Control checks?

To what degree do you find that Squad Leaders' ratings of Qualified agree with ratings made on the Quality Control checks?

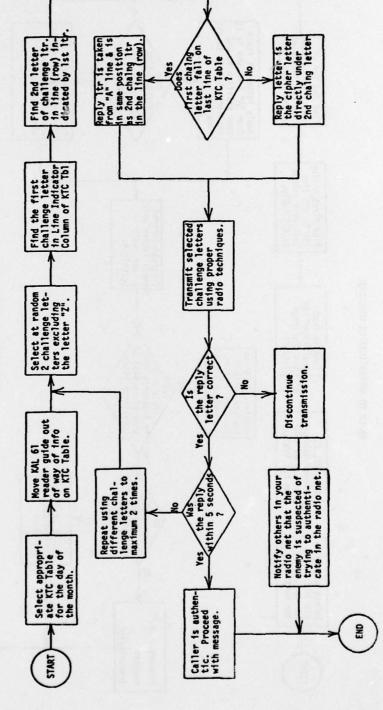
### 7. Training Support

Did you have any difficulty in furnishing support (equipment and training areas) to the Individual Training Program?

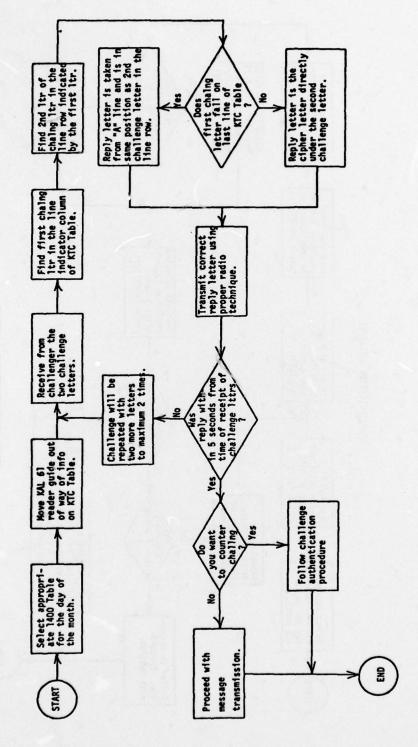
APPENDIX H

# SAMPLE TASK DEFINITION DIAGRAMS

# AUTHENTICATION CHALLENGE



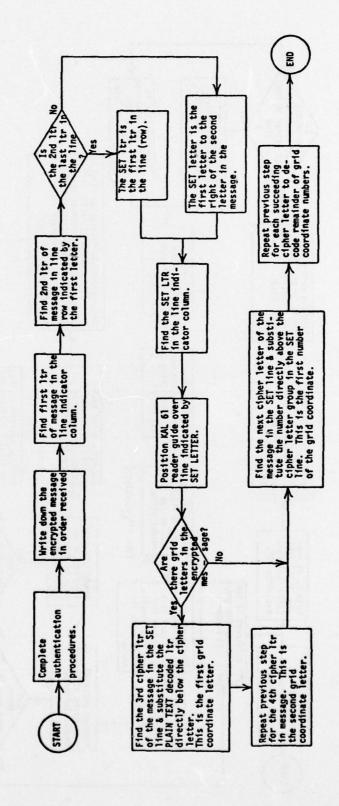
REPLY TO AUTHENTICATION CHALLENGE

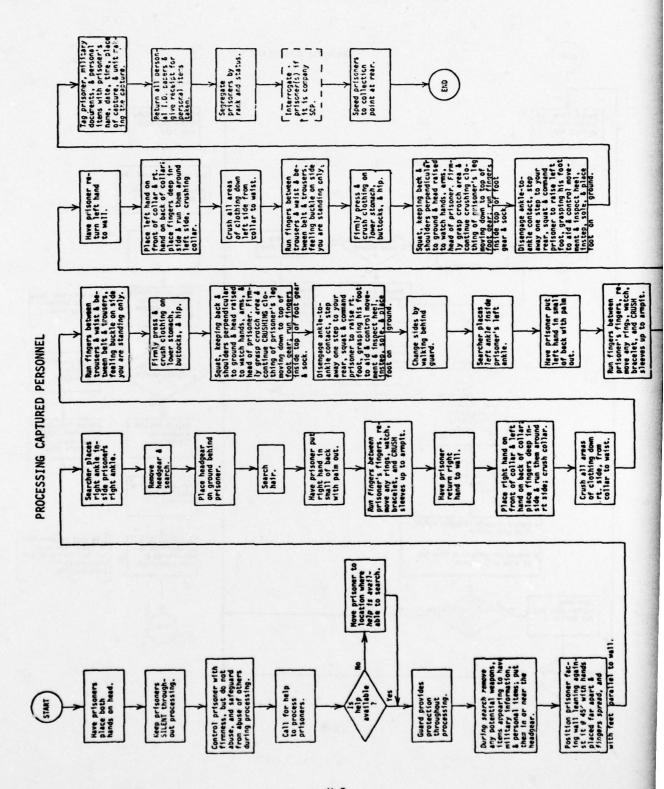


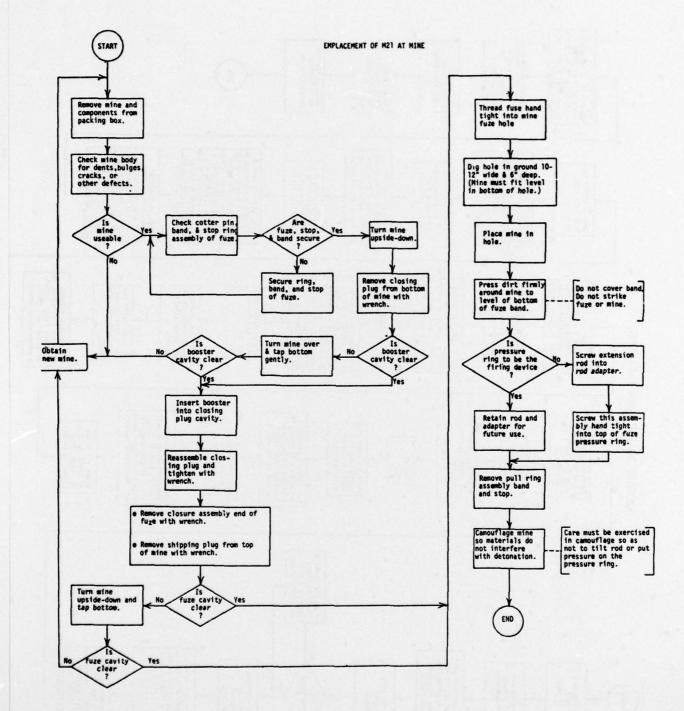
2 The set letter is the first letter to the right of the 2nd SI in the line. the second
SI letter the
last letter in the The set letter is the first letter in the line (row). 2 Arrange encoded message so first 2 letters are the SI letter with the grid letter coordinate ciphers in the 3rd & 4th positions with the grid no. coordinate cipher ltrs following in order. Transmit encrypted message by correct radio procedure (phonetically). Find the second ltr of the SI in the line (row) indicated by the first letter. Find the SET LETTER in the line indicator column. Position KAL 61 reader guide over line indicated by SET LETTER. Arrange encoded message so first 2 ltrs are the SI ltrs, with the grid no. coordinate cipher ltrs following in order Substitute for each PLAIN TEXT itr the cipher itr directly above in the SET line. Find the first letter of the SI & position KAL 61 reader guide on letter in the line indicator column. [See illustration.] Find no. to encode in PLAIN TEXT no. on the reader guide. Find first grid zone ltr to en-code in PLAIN TEXT ltr on r.g. try to be en-Select, at ran-dom, 2 SET INDI-CATOR (SI) Itrs excluding "Z". Use different SI for each succeeding grp, of 1 - 15 numbers. Substitute for ea. no. one of the cipher lirs. grouped in the set line immediately below the number. 2 Encrypt repeated nos. using different cipher letter of Complete authentication procedures. there than 15 numbers to be en-Encrypt ea. number in order. START ë

ENCODE (ENCRYPT) GRID COORDINATES

DECODE (DECRYPT) GRID COORDINATES







)



